HOSPITAL ABSTRACTS

A MONTHLY SURVEY OF WORLD LITERATURE

PREPARED BY THE DEPARTMENT OF HEALTH

AND SOCIAL SECURITY

VOLUME 19, NO. 10, ABSTRACTS 1399-1549. OCTOBER 1979

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HOSPITAL ABSTRACTS

Vol. 19 October, 1979 No. 10

HOSPITALS IN GREAT BRITAIN

1399. ROYAL COMMISSION ON THE NATIONAL HEALTH SERVICE. **Report.** (Chairman: Sir Alec Merrison). (Cmnd. 7615) London, HMSO, 1979, xi, 491pp. £8.00

The Royal Commission was established 'to consider the interests both of patients and of those who work in the National Health Service and how to make the best use and management of the financial and manpower resources of the National Health Service'. The report gives much background and statistical information, with a chapter devoted to hospital services (pp. 125-146). Among its conclusions and recommendations are proposals for research into day admissions of patients, the provision of more information for patients, changes in the role of hospitals in the treatment of mental illness and the rapid replacement of old hospital buildings.

HOSPITALS IN OTHER COUNTRIES

See also Abstract No. 1424

1400. De doelstellingen van het Ziekenhuis Maastricht. **[The objectives of the Maastricht Hospital.]** *Ziekenhuis*, Utrecht, 1979, April 4, vol. 9, no. 7, pp. 160-162.

A study has outlined the objectives for Maastricht Hospital as a teaching hospital. As the regional hospitals can jointly provide staff and facilities for practical medical training, Maastricht Hospital should become the basis for academic teaching, including research and specialist training. To improve the relationship between hospital care and regional health care, the emphasis should be on more self help, polyclinical treatment and the consultative function of the specialist. The tasks of specialists and practitioners should be more clearly defined, concentrating on three aspects: referring the patient to the specialist; hospital admission; and discharge. A regional structure of co-operation between hospital institutions and health care workers could be based on a regional medical centre, pointing the way to the 'medical unit hospital system' with a joint form of management. A structure should be developed for non-institutional forms of health care service training and for the planning of functions and provisions. Investment can be provided through long term loans with interest and repayments calculated in the hospital fees. Exploitation costs should be the joint responsibility of hospital, government and insurance companies. Research can be provided for by additional budgeting for salaries of academic staff.

1401. SPOELSTRA, D. Burgerziekenhuis bestaat 100 jaar. **[Centenary of the Burger Hospital, Amsterdam.]** *Technische Gids voor Ziekenhuis en Instelling*, Amsterdam, 1979, April, vol. 48, no. 1147, pp. 209, 211.

The Burger Hospital, opened in 1879, was originally accommodated in two residential mansions, but in 1891 was rehoused in a then hyper-modern building. After 1960 this general, non-denominational 255-bed hospital was nearly entirely renovated,

including the eight clinical departments, maternity unit and clinical rehabilitation. Examination and treatment departments have been moved into new buildings, as have the clinical-chemical laboratory, dispensary, section for electroencepalography X-ray department, lecture rooms, and in 1974 the operating suite. Accommodation for staff, administration, domestic and technical services has also been expanded and improved. The clinical rehabilitation department specializes in patients with serious injuries through accident or illness, and treatment is carried out by a multi-disciplinary team. In the children's department there is a shift from curative to the psycho-social aspects. The hospital has a medical training school and is affiliated to the University of Amsterdam and the Free University. Emphasis is laid on personal contact between specialists and patients. The atmosphere is as homely as possible. There are further plans for centralization and reorganization of the polyclinics.

1402. BANNIER. L'hôpital à la Réunion—missions et moyens des hôpitaux à la Réunion. **[Hospitals on Réunion—objectives and organization of the hospitals.]** *Revue Hospitalière*, Paris, 1979, May, vol. 43, no. 321, pp. 435-455.

The population of the island of Réunion is 488,000 and it is served in the public sector by four general hospitals, five local hospitals, a sanatorium, and a psychiatric hospital. These establishments provide a total of 3,000 beds. They are, however, understaffed and their facilities, particularly with regard to surgery, are not very good. The running costs per bed are higher than in Metropolitan France but the cost per patient is lower because the beds are fully occupied. The patients who use the public hospitals come mainly from the poorest sectors of society and their care is completely free; doctors prefer to send patients who can pay elsewhere.

1403. WHITE, W. D. **Regulating competition in a non-profit industry: the problem of for-profit hospitals.** *Inquiry*, Chicago, 1979, vol. 16, no. 1, pp. 50-61.

To the extent that non-profit hospitals seek objectives other than that of profit maximization, they may adopt pricing and investment policies that make them potentially vulnerable to competition from for-profit hospitals. The purpose of this paper is to try to clarify the debate on this subject by presenting the main theoretical arguments for regulation on a systematic basis using simple economic models. The first part of the paper describes the existing structure of the hospital industry and discusses the prospects for change. The second part develops models of the behaviour of non-profit hospitals and the possible impact of competition by for-profit hospitals. These models are then used to consider the main theoretical argument for regulating for-profit hospitals. The theoretical analysis suggests that it may be in the public interest to regulate competition from for-profit hospitals, but this will not always be socially desirable. Some areas for future research are suggested.

1404. SPRI. Lokala sjukhem underlag för planering och projektering. **[Community nursing homes for long-term care: planning recommendations.]** (Spri Rapport 12) Stockholm, Spri, 1979, 103pp.

This report outlines the system of community nursing homes in Sweden. The basic premise of the report is that chronically ill patients should have a dignified way of life.

Planning and design of the physical environment are covered and single rooms are recommended rather than wards. Staffing levels and supply services are also considered but the proposals are intended not to require extra staff.

PLANNING, DESIGN AND CONSTRUCTION

1405. HATCH, S. W. and TUTHILL, J. P. **Hospitals should finance medical office buildings.** *Hospitals*, Chicago, 1979, April 16, vol. 53, no. 8, pp. 104-106, 108.

When a hospital board considers the development of a medical office building on the hospital site, it must ultimately decide what best will serve the hospital, the medical staff, and the community. Not the least critical aspect of these deliberations is the financing of the project. However, a thorough analysis of the proposals will, in most instances, convince the board that the hospital's financial commitment to a campus-based medical office building is not only sound but also advances the overall objectives of the hospital and the medical staff.

DETERMINING SIZE OF HOSPITAL AND BED NEEDS

See Abstract No. 1448

HOSPITAL DESIGN

1406. HALL, C. L. **Designing your hospitals: planning needs.** *Royal Society of Health Journal*, London, 1979, April, vol. 99, no. 2, pp. 70-73.

This paper discusses the information required by service planners who are asked to examine the need for a new hospital, which in fact usually means to replace out of date facilities with a new hospital. The information which must be obtained includes: details of the population, its distribution and characteristics; a survey of existing services; availability of manpower; information from consultation with interested parties; including those concerned with day care, out-patient departments, short-stay care, care of the elderly, diagnostic departments, and resources. A format for a statement of need or planning brief used in the Wessex region is given in an appendix.

1407. **Hospital's design enhances efficiency and growth, resembles region's historical architecture.** *Hospitals*, Chicago, 1979, March 16, vol. 53, no. 6, pp. 38-40.

The 235-bed St. Vincent Hospital, Santa Fe, N.M., built in 1977 at a cost of $50 per square foot, is a three-storey building with many irregularly shaped, vertical and horizontal spaces that accommodate the special functions and provide for the future growth of various departments. With its irregular configuration, partly stucco sand-coloured facade, and narrow or small windows on the South Side, the building resembles the historical architecture of the south western region. A circulation spine or main corridor divides the facility into two zones. To the north are units which can be accommodated in regularly shaped, repetitive spaces (offices, nursing units), and

to the south are functions requiring irregularly shaped individualized spaces (ancillary, support and specialized services). Nursing units are triangular in form to provide easier supervision and flexibility. Plans of each floor and two photographs are included.

1408. KOIVULA, R. **University hospital consisting of separate and autonomous units.** *Bauen & Wohnen*, Zürich, 1979, May, vol. 33, no. 5, pp. 181-184.

The 1,097-bed hospital at Oulu, Finland was begun in 1968. The buildings on the site are low-rise and self-contained. Each department has a separate building; each clinic has a separate entrance and comprises in-patient, out-patient and classroom facilities. The original design won an award in 1966.

EXTENSIONS AND RECONSTRUCTIONS

1409. Krankenhäuser in einer Phase der Standard-Anpassung: betriebliche Verbesserungen am Beispiel der Erweiterung der Klinik Hirslanden. **[Hospitals in a phase of standard adaptation: extensions to the Hirslanden Hospital as an example of organizational improvements.]** *Veska*, Aarau, 1979, April, vol. 43, no. 4, pp. 206-208.

The Hirslanden Clinic, a 105-bed private hospital built in 1932 and which over the years has had various structural and functional improvements, has now under construction a completely new operating department costing 10 million Swiss francs which should be completed by the end of 1979. Designed on a double corridor plan the unit has three aseptic operating theatres and one entirely separate septic theatre. The new unit will also have a central sterile supply department and a bed centre. These new additions to the hospital will make possible improvements to the general hygiene level and will bring up to date the operating, sterilizing and bed disinfection procedures. The paper includes a floor plan of the operating department.

DESIGN OF SPECIAL DEPARTMENTS

See also Abstract Nos. 1474, 1522, 1541

1410. GALVIN, J. M. **Hospital makes itself center for treatment of radiation victims.** *Hospitals*, Chicago, 1979, May 1, vol. 53, no. 9, pp. 37-40.

Salem (N.J.) County Memorial Hospital began developing a plan of action for the provision of care for radiation victims in 1972. Its interest and willingness resulted in a request from a local utility company to provide medical support services for its nuclear power plant (about 10 miles away) in the event of an accident. The plan has led to the development of a prototype hospital radiation trauma and treatment centre. The centre is in a room similar to an operating theatre, with the use of a deluge water system for decontamination purposes. An intricate, triple-tiered system of medical care was developed at the plant, in the hospital's centre, and at a university hospital (for long-term care and research). At the hospital, the emergency department radiation team consisting of two hospital physicians, a team of nurses and the nuclear plant's physicist make up the nucleus of the treatment team. Procedures and training are discussed. A plan of the centre is included.

1411. ONTARIO. MINISTRY OF HEALTH. PERSONAL HEALTH DIVISION. **Guidelines for design of chronic care units.** (HRP-0019513) [Springfield, Va.], United States National Technical Information Service, 1977, [iv], 15pp.

The design and fittings of a chronic care unit should be as homely and cheerful as possible. Detailed guidelines are presented here, including a recommendation for the provision of a wines and spirits room. Some figures are given and most aspects of the physical environment are covered. There is a bibliography, mainly of Canadian items.

ENGINEERING SERVICES

INSTALLATIONS IN GENERAL

1412. DELESIE, L. Wat verwacht het gezondheidsbeleid van de ingenieur in de komende vijfentwintig jaar? **[What do hospital/health services expect from engineers in the next 25 years?]** *Hospitalia*, Brussel, 1979, vol. 23, no. 1, pp. 14-18.

The authorities should make an urgent start with the development of technical norms for medical equipment; engineers concerned with the technical and safety standards for medical equipment should be appointed within the health service. Attention should also be paid to the social dimension of the engineering profession. Engineers could concern themselves more with problems of air pollution and waste disposal, as well as with such items as the recycling of paper. Engineers should pay more regard to social and organizational dimensions where their expertise could be of use. Another field for their activity would be: (i) the introduction and adaptation of new equipment; and (ii) the safety aspects of handling equipment and materials from the point of view of both staff and patients.

ARTIFICIAL LIGHTING

1413. ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA. **Lighting for health care facilities.** (CP-29) New York, Illuminating Engineering Society of North America, 1978, 54pp. $10.00

'Lighting for Hospitals', published in 1966, has now been updated and expanded to include health facilities in general. Where hospital facilities are similar to those in other institutions, such as libraries, offices, and workshops, reference is made to other publications by the Society. Special consideration is given to the facilities with unique requirements, such as the operating theatre. A glossary is provided and some basic information for those without professional knowledge of design or lighting. Likewise a glossary is provided of medical and hospital terms for the professional without knowledge of this special field. A short index completes the booklet.

TRANSPORT IN GENERAL

See Abstract No. 1504

HEATING

See Abstract No. 1447

MAINTENANCE OF BUILDINGS AND EQUIPMENT

See also Abstract Nos. 1421, 1497

1414. KEIL, O. R. **Development of an in-house clinical engineering shared service.** *Journal of Clinical Engineering*, Diamond Bar, Calif., 1979, Jan./March, vol. 4, no. 1, pp. 21-24.

The Greenville (S.C.) Hospital System is a voluntary, non-profit organization serving a population of about 300,000. Its facilities include five general hospitals, a psychiatric hospital, a rehabilitation hospital, a nursing home, a family practice centre, and a cancer treatment centre; it has a total of 1,078 beds. With the help of Carolina Hospital Engineering Sport Services, an in-house shared clinical engineering service has been established. This paper outlines the development of the service and describes the following aspects: staffing; equipment control and preventive maintenance; and education and staff development.

1415. MCCULLOUGH, C. E. and BAKER, L. S. **Designing special test instruments for preventive maintenance.** *Journal of Clinical Engineering*, Diamond Bar, Calif., 1979, Jan./March, vol. 4, no. 1, pp. 25-28.

Regular performance testing of biomedical equipment can be made considerably more efficient by careful design of test procedures and by making special test instruments which are designed for those procedures. The design philosophy behind such procedures and instruments and its applicability to a wide variety of biomedical devices is discussed. As a practical example, an ECG machine/monitor test system is described and construction details are given. A schematic diagram, and interior and exterior views of the test set are included.

1416. SCHWARTZ, L. **A computer-assisted preventive maintenance system.** *Journal of Clinical Engineering*, Diamond Bar, Calif., 1979, Jan./March, vol. 4, no. 1, pp. 66-70.

The overall objective of the computer assisted preventive maintenance system (CAPMS), described in this paper, is to provide an automated, planned, equipment maintenance schedule and record-keeping system that meets both present and future requirements of the user, the Joint Commission for the Accreditation of Hospitals, or other regulatory agencies. In order to accomplish this, CAPMS: (i) identifies the user's capital equipment inventory; (ii) provides reporting, notices, logs, etc., pertaining to equipment repair and preventive maintenance scheduling; (iii) reduces equipment procurement costs; and (iv) allows key staff to devote their complete attention to the operation of the equipment. CAPMS is divided into two primary components: scheduling, which provides a monthly schedule of items of equipment due for preventive maintenance the following month; and risk management, which provides the ability to maintain different categories of safety documentation. The system is run on an

IBM 370 system under DOS/VS, the programs are written in ANSCOBOL and use the IBM SORT/MERGE utility.

SANITARY EQUIPMENT AND FITTINGS

See Abstract No. 1420

EQUIPMENT, FITTINGS, FURNITURE

INTERIOR DECORATION

1417. HYMAN, R. **Choosing art for your hospital: some basic do's and don'ts.** *Hospitals*, Chicago, 1979, March 16, vol. 53, no. 6, pp. 95-98.

Art can enliven the hospital atmosphere at relatively low cost, but there are several important factors to consider when choosing art for public spaces. These include function, maintenance, resistance to dirt, fire and theft, and viewing time and distance. Art in hospital lobbies should: (i) have a wide appeal; (ii) be restful but interesting; and (iii) be resistant to fire and cleaning processes. In a patient's room, however, art work should be easily changeable to conform with the taste of individual patients. A wide range of media and formats are available from which a hospital can choose its art work, including pictures, wall hangings and banners, murals and sculpture. Costs vary widely and guidelines for choice are in short supply. However, the above considerations combined with common sense and experience should lead to a satisfactory selection of both art forms and methods of installation.

BEDS, COTS, ETC.

1418. PORTER, D. **Revised standard for hospital beds.** *New Zealand Hospital*, Wellington, 1979, March, vol. 31, no. 2, pp. 7, 9, 10.

The standard for hospital beds in New Zealand has recently been revised to include regulations for variable height beds and to convert the standard of 1971 to the metric system. There is also a complementary standard for accessories which will ensure that hospitals can use the same accessories on different types of beds. The standard includes: (i) the principal dimensions and constructional requirements for both fixed and variable height beds; (ii) general requirements for the mattress frame, mattress desk, adjustable back rest, bed head and bed foot end; and (iii) requirements for the bed's functions, including the accommodation of accessories and the operation of the mattress frame tilt mechanism. Compliance with the standard through a system of control and testing entitles the manufacturer to use the Standards Association of New Zealand Certification Mark.

1419. ROBERTSON, J. C. **And so to beds ...** *Nursing Mirror*, Sutton, 1979, May 24, vol. 148, no. 21, supplement; pp. i-iii, vii, ix, xiii, xvii.

The intensive use of beds and wide range of disablement found in patients mean a

vital role for Patient Support Systems (PSS). A study of the transfers of patients and of the furniture and beds used can help avoid unnecessary work or patient discomfort. The article considers features such as those affecting the skin microenvironment and appraises the value of beds and other equipment.

HARDWARE, BEDPANS, URINE BOTTLES

1420. HAWKINS, C. M. **Bedpan systems—a nationwide survey.** *Hospital Equipment & Supplies*, London, 1979, April, vol. 25, no. 4, pp. 31, 32.

In a nationwide survey infection control nurses were asked to collect information relating to systems in use for the disposal or disinfection of bedpans. Specific points recorded were: type of system in use; make and age of machines; breakdown rates and reasons for breakdowns; noise factors; disinfection of bedpan supports used in disposable systems; storage problems; and efficiency of systems. The replies are briefly reviewed. Whichever system is to be used, it is essential that the equipment is reliable both from the patient's and user's point of view. It would appear that the following criteria should be attained with some urgency: (i) a multidisciplinary teaching approach to the situation, both at the planning stage and in on-going assessment; (ii) more research by manufacturers; (iii) built-in recording devices and fail-safe mechanisms in washer/disinfectors; (iv) education of users in the system chosen; (v) a system of planned preventive maintenance; and (vi) regular microbiological tests to check for aerosol contamination, etc.

EQUIPMENT GENERALLY

See also Abstract Nos. 1414-1416, 1509, 1510

1421. OSTRANDER, L. E. **Presentation of the clinical engineering role to hospital administrators.** *Journal of Clinical Engineering*, Diamond Bar, Calif., 1979, Jan./March, vol. 4, no. 1, pp. 11-19.

This paper constitutes a presentation to hospital administrators on the role of clinical engineering. Its aim is to create awareness, encourage further interaction, and increase receptiveness to further exchange of ideas. The presentation is based on the guidelines issued by the Joint Commission for the Accreditation of Hospitals and covers: staff instruction; qualitative advice; medical equipment control; costs; performance inspection; record keeping; clinical engineering departments; training programmes in clinical engineering; and shared services.

1422. FRITZ, L. R. **Technology: future challenge is information gathering and co-ordination.** *Hospitals*, Chicago, 1979, April 1, vol. 53, no. 7, pp. 181-184.

Some of the problems and concerns regarding the introduction of new technologies in health care are outlined. The National Center for Health Care Technology has been created to study the complex problems. There is a lack of accurate data and information, and consequently policymaking and research with regard to technology become mere speculation. There is a need for a co-ordinated system for developing and disseminating information for decision-making. Some of the steps being taken to meet this need are outlined.

AUDIO-VISUAL EQUIPMENT

1423. TOWNSEND, I. **The audio-visual revolution: do we really need it?** *Journal of Advanced Nursing*, Oxford, 1979, March, vol. 4, no. 2, pp. 181-192.

Increasing use is being made of audio-visual aids in nursing, as in other fields of education. Its purchase and use, however, rely on satisfying personal whim, prejudice or educational fashion, not on considerations of educational efficiency. In the rush of enthusiasm, the overwhelmed teacher forgets to ask the searching, critical questions. In an attempt to discover what is known about the answers to these questions, an eclectic look at media research is taken and the widespread dissatisfaction existing among international educational technologists is noted. Several factors responsible for the present state of affairs are isolated from the literature. Findings from the field of educational television are cited as representative of an aid which has had a considerable amount of time and research directed to it. The concluding part of the paper shows the decisions to be taken for using or not using educational media as being more complicated than might at first appear. A list of 65 references to the literature is included.

STAFF GENERALLY

STAFF COMPLEMENTS

See Abstract No. 1431

RECRUITMENT AND MANPOWER

See also Abstract Nos. 1426, 1432, 1433

1424. STRYKER-GORDON, R. **Minnesota study suggests means of reducing turnover rates in nursing homes.** *Journal of Nursing Administration*, Wakefield, Mass., 1979, April, vol. 9, no. 4, pp. 17-20.

A research project involving a randomly selected sample of 110 Minnesota nursing homes (25 per cent of all nursing homes in the state) studied the relationship between staff turnover rates and selected organizational factors. As regards the turnover rate of the total organization, 55 per cent of the homes had a turnover rate of less than 40 per cent, and nine per cent had rates of over 80 per cent. For nursing assistants, 45 per cent of the homes had rates of 40 per cent or less, and 20 per cent had rates over 80 per cent. However turnover rates were, for the most part, lower in the smaller nursing homes in small communities. The study provided information for administrators which they had not previously possessed and enabled them to take remedial action.

SALARIES AND SUPERANNUATION

See Abstract No. 1446

STAFF MANAGEMENT

See Abstract Nos. 1434, 1437, 1511

STAFF TRAINING

See Abstract Nos. 1423, 1425, 1436, 1438, 1440, 1443

STAFF WELFARE

See Abstract No. 1533

SPECIAL CLASSES OF STAFF

ADMINISTRATIVE AND CLERICAL STAFF

See also Abstract No. 1460

1425. HEPNER, J. O. **Six steps ease town-gown battle for educators and practitioners.** *Hospitals*, Chicago, 1979, April 16, vol. 53, no. 8, pp. 111-115.

During the past 30 years, a 'town-gown' conflict between health administration practice and education has evolved that parallels the situation between medical education and practice. This conflict is a result of the change from practitioner-dominated education to full-time university education. Six steps are proposed to bring practitioners and educators into harmony, using the medical education model as a base for professional preparation of master's degree graduates in health services administration. They are: (i) establish a good relationship between the Association of University Programs in Health Administration (AUPHA) and the American College of Health Administrators (ACHA); (ii) standards regarding health administration education to be set by the Accrediting Commission on Education for Health Services Administration (ACEHSA); (iii) AUPHA, as an academic trade association, must be separated from ACEHSA, the academic quality assurance organization; (iv) realise that the real concern of complaints of too many programmes and too many graduates is to reduce entry to the profession; (v) ACHA should again take an active part in hospital administrative residency by developing standards; and (vi) there is a need for a forum for the exchange of data and research findings between academics and practitioners.

MEDICAL STAFF

1426. HUTT, R., PARSONS, D. and PEARSON, R. **The determinants of doctors' career decisions: a report by the Institute of Manpower Studies to the Department of Health and Social Security and the Scottish Home and Health Department.** Brighton, Institute of Manpower Studies, 1979, 5 vols. £19.00

This report is the result of a study commissioned by the Department of Health and Social Security and the Scottish Home and Health Department in 1976. It was intended

to investigate the distribution of doctors between different specialties rather than overall manpower requirements. Attempts to attract doctors by advertising the career prospects in certain specialities had not been successful and it was felt that shortfalls might be even greater than was apparent since new posts were not created where existing posts were not filled. The study found significant shortages at recruitment level in geriatrics, genito-urinary medicine, nephrology, anaesthetics, radiology, radiotherapy, community medicine, cardiology and some surgical specialties. In Scotland the shortages were at slightly different levels and in different departments to the national situation, likewise some more local variations occurred. Full statistical appendices and a technical report are given in separate volumes.

1427. VERZELLENBERG, L. N. J. De integratie van de medicus in de ziekenhuisorganisatie. **[Integration of the medical specialist into the hospital organization.]** *Acta Hospitalia*, Leuven, 1979, vol. 19, no. 1, pp. 25-48.

In its introduction the paper mentions: the percentage of national income spent on hospitals (3.44 per cent); the effect of social changes on relations between hospital specialists, other staff and patients; and the comparison with industry. The purpose and functions of a hospital are discussed and an analysis is made of hospital organization, distinguishing different decision levels, such as policy and purpose, execution, programming and development. The position of the medical profession is examined with its professional characteristics, particularly its autonomy and dominance over other occupational groups, and its relations with patients, the health service and society. The development of medical technology increases the influence of medical specialists and also raises the professional status of other occupational groups. To minimize conflicts integration of the medical profession with the other groups becomes essential. Problems and areas of conflict are examined at each decision level and suggestions are made, such as work consultation at executive decision level between the groups within the nursing units, a structure of hierarchy for consultation groups within the departments, and the setting up of working and advisory groups. The paper includes four diagrams and 23 references.

NURSING STAFF

See also Abstract Nos. 1423, 1424, 1452, 1507, 1513, 1547

1428. GRYPDONCK, M. and others. **Integrating nursing: a holistic approach to the delivery of nursing care.** *International Journal of Nursing Studies*, Oxford, 1979, vol. 16, no. 2, pp. 215-230.

A 1972 research contract between the Belgian Ministry of Health and the Department of Hospital Administration and Medical Care Organization of the University of Louvain required the researchers to define the difficulties hospitals were facing in providing nursing care and to make proposals for remedial action. After a diagnosis was made of the problems of nursing at nursing unit level, a proposal for re-orientation of nursing care was made. This proposal, called integrated nursing, involved a reorganization of nursing practice at nursing unit level and, equally important, a new

concept of nursing. The most important beliefs and values incorporated in integrated nursing are summarized. After a one-year test of the model in a pilot hospital, a new model giving guidelines for the introduction of integrated nursing was prepared. It has now been introduced in seven hospitals under close monitoring of the research staff. Formal evaluation has not yet been done.

1429. HOY, R. A. and ROBBINS, J. **The profession of nursing.** Maidenhead, London, McGraw-Hill (U.K.), 1979, viii, 166pp. £3.50

This nursing textbook is intended both for students and teachers. There are four sections: (i) the development of nursing within various societies; (ii) the nurse practitioner; (iii) nursing within a caring situation; and (iv) nurse management for patient care. There is a special appendix on the Mental Health Act 1959. A bibliography and index are included.

1430. CUDDIHY, J. T. **Clinical research: translation into nursing practice.** *International Journal of Nursing Studies*, Oxford, 1979, vol. 16, no. 1, pp. 65-72.

This paper describes a pilot study of nursing practice in which the proper communication of the findings had a significant effect on nursing care. Two groups of 10 mobile paediatric patients were selected for the study and the nursing care received was evaluated using both a process and an outcome audit technique. The results showed that, while a high level of nursing was provided for each patient, there were some varying scores which revealed inconsistent levels of practice between individual patients. The results are set out in detail. A second study of a further 10 patients after one week revealed that a significant alteration in nursing care patterns had developed, probably because the deficiencies revealed by the first study had been communicated to the nursing staff in an authoritative and helpful manner. These data indicate that even studies involving a small number of patients can produce a positive impact upon nursing care practice.

1431. HOFER, M. Berechnungsmethoden für Pflegepersonalbedarf. **[Methods for calculating nursing staff requirements.]** *Veska*, Aarau, 1979, April, vol. 43, no. 4, pp. 214-217.

This paper first gives brief descriptions of a number of currently used methods for determining nursing staff requirements. These include: calculating the time needed for each unit of performance; determining the necessary hours of attendance for a particular activity; the use of standard figures for the number of staff needed per bed in different departments; the need to meet certain statutory requirements; and agreements as to the staff required for the introduction of new methods. These methods are found wanting for the following reasons: lack of performance standards; certain areas require a minimum staffing level although such staff are not fully occupied; and the reduction in length of stay. The author then puts forward her own proposals which involve careful assessment of the proportion of patients in each dependence category in order to determine the number of staff required per ward and per day.

1432. TEN BRINK, E. Ausfallzeiten im Pflege- und Funktionsbereich. **[Nurses' lost time on the ward and in other areas.]** *Deutsche Krankenpflege-Zeitschrift*, Stuttgart, 1979, June, vol. 32, no. 6, pp. 300-307.

Lost time as defined here in the context of hospital nursing includes leave, attendance at training courses and conferences, special leave (marriage, death of a near relative, etc.), illness or accident, pregnancy, sanitorium treatment, and staff outings. The average percentage of lost time is, according to guidelines laid down in 1969, 15 per cent but the figure now could well be in excess of this. If accurate figures are to be arrived at, careful and accurate records of lost time must be maintained and this paper gives details, with specimen forms, of what is required. An example set out in this paper gives the following lost time percentages: nurses in areas other than wards, 16.79; ward nurses, 20.48; children's nurses, 15.63; student nurses, 13.78.

1433. Untersuchung über den gegenwärtigen und künftigen Bedarf an Krankenpflegepersonen in der Bundesrepublik Deutschland—Krankenpflegeenquete. **[An investigation into the present and future need for nursing staff in the Federal Republic of Germany.]** *Deutsche Krankenpflege-Zeitschrift*, Stuttgart, 1979, June, vol. 32, no. 6, supplement; pp. 1-11.

This comprehensive enquiry into the need for nurses in Western Germany sets out the year-by-year figures for 1970 to 1976, and gives a projection of needs for 1980 to 1995. It starts off with the assumption that in the coming years there will be an increasing number of student nurses but that from 1990 the shortage of nurses will increase again to 1995 (the actual figures arrived at for shortage of nurses are as follows: 1980, 48,510; 1985, 13,040; 1990, 930; 1995, 12,540). Decisions have to be made on the need to extend nurse training; whether to 'reactivate' former nurses; and on whether to recruit more qualified nurses from overseas. The paper includes seven statistical tables and four charts.

1434. CHASKA, N. L. **Nursing: many issues raised, many unresolved, many neglected.** *Hospitals*, Chicago, 1979, April 1, vol. 53, no. 7, pp. 158-162.

The growth in technical developments, affecting staff and procedures as well as materials and equipment, has sharpened the issue of how nursing care should be provided and how new technologies should be applied. Reflecting these concerns, the nursing administration literature of 1978 predominantly addressed issues surrounding the function and process of nursing management—such as primary nursing, continuing education, cost-effectiveness, and evaluation research. More discussion, data gathering and evaluation research are needed to enable administrators to make decisions and resolve issues.

1435. WORLD HEALTH ORGANIZATION. REGIONAL OFFICE FOR EUROPE. **Evaluation of inpatient nursing practice: report on a working group, Regensburg, 18-21 October 1977.** (EURO Reports and Studies 4). Copenhagen, WHO Regional Office for Europe, 1979, [iii], 18pp. Sw.fr.4.-

The World Health Organization (WHO) has had a nursing/midwifery programme in Europe since 1976. In collaboration with the West German government the WHO

organized a meeting to examine current theory and practice, to identify specific study areas and to propose activities and projects. The conference found considerable gaps in areas such as nursing information systems and nomenclature.

1436. SKEATH, W. A. and others. **Criteria to be used in the selection of clinical areas for basic nurse training.** *Journal of Advanced Nursing*, Oxford, 1979, March, vol. 4, no. 2, pp. 169-180.

The problem of establishing criteria to be considered when selecting clinical areas for basic nurse training was investigated by the teaching team from Bexley Hospital Nurse Education Centre, Kent. Visits to non-nurse training establishments provided little information in respect of learner placement in nursing. A review of the literature revealed few relevant papers, but four were interesting and of considerable value. Replies to a questionnaire devised by the team revealed many significant differences between the attitudes of those nurses involved in basic nurse training in the hospital's wards and departments when compared with those of the other teaching and service staff. A checklist of criteria was ultimately compiled and it was suggested that a further comparative study emphasizing the attitude component of this project should be made after 12 months.

1437. MOORES, B. and MOULT, A. **Patterns of nurse activity.** *Journal of Advanced Nursing*, Oxford, 1979, March, vol. 4, no. 2, pp. 137-149.

A major study was undertaken in three acute hospitals of how nursing staff occupied their time on the medical, surgical and orthopaedic wards. The observation technique used was systematic activity sampling. In addition, all the interactions patients received from nurses were recorded, the categorization scheme for both sets of data being identical. The overall results, produced by computer analysis, are presented in tables and diagrams. The proportions of time devoted to the 137 activities are listed in descending order of occurrence. Other tables show percentage of time spent by the various grades of staff on the categorized functions (basic, technical, administrative, personal, unskilled and other) and on direct and indirect care, and variations between the three hospitals. One of the less expected results was the amount of nursing performed which was categorized as 'basic'.

1438. SMITH, R. B. **Innovative program keeps them 'down on the farm'.** *Hospitals*, Chicago, 1979, March 16, vol. 53, no. 6, pp. 131-132, 134.

A Nursing Advancement Program was carried out at Payson Community Hospital, Utah, with help from a nearby college and the approval of the Utah State Board of Nursing. The course was open to established employees of the hospital and local nursing homes and 17 applicants were finally selected. Professional nursing and general education classes were carried out at the hospital, enabling the employees to remain there. Tests were carried out during the course to monitor the students' progress and the results were very satisfactory. At the end of the course, 11 students were awarded an associate degree and became registered nurses. The results indicate that a Nursing Advancement Program leading to registration can be conducted successfully in a rural hospital for those unable to leave families or employment.

1439. LARSEN, T. Administrative og organisatoriske styringsmidler vedrørende sygeplejefunktionen. **[Administrative and organizational methods relating to nursing functions.]** (DSI-Specialrapport 78.06) København, Dansk Sygehus Institut, 1978, 79pp.

Work at Odense Hospital is used to examine the best ways of organizing staff and costing techniques. Practical suggestions include: (i) a joint supply pool; (ii) graduated patient care; (iii) visual displays of management information; and (iv) a committee structure. Considerable emphasis is given to the collection of relevant statistics.

1440. MÜSCH, T. Vorstellung eines neuen Beurteilungsbogens für Kinderkrankenpflegeschülerinnen. **[A new form for assessing the work of student children's nurses.]** *Deutsche Krankenpflege-Zeitschrift*, Stuttgart, 1979, June, vol. 32, no. 6, pp. 327-329.

A detailed form for assessing the progress and ability of student children's nurses is reproduced. Provision is made for the marking of 27 activities and attitudes (under seven main heads) on a scale of 1 (unsuitable) to 10 (ability far above the required standard). The student nurse herself and the ward team award marks separately and the results are compared and discussed with the student nurse.

1441. BOEHNCKE, H. Einige kritische Gedanken über das Berufsbild der Kinderkrankenschwester. **[Some observations on the profession of children's nurse.]** *Deutsche Krankenpflege-Zeitschrift*, Stuttgart, 1979, June, vol. 32, no. 6, pp. 325-326.

In recent years there have been great changes in the work of the children's nurse, brought about by reduction in length of stay, more liberal visiting times, admission of mothers with their children, rooming-in and the sharing of mothers in the care of their children. The nurse has become teacher, practitioner of psychotherapy and partner of the mother—an important function. It would be a good idea to supplement the basic training of children's nurses with specialist training suited to the nurse's interests and capacity. Children's nurses should be trained not only for hospital work but also for external duties with the accent on social paediatrics. The nurse should be able to work in out-patient departments, in medical practices, in the care of handicapped children, and in the home care of the chronically ill child.

OTHER PROFESSIONAL AND TECHNICAL STAFF

1442. SCHEFFLER, R. M. and RUBY, G. **Physician assistant: the new profession.** *Emergency*, Carlsbad, Calif., 1979, Jan., vol. 11, no. 1, pp. 28-30.

Physician assistants can relieve physicians of some primary tasks of medical care and at present there are 52 training courses throughout the United States. There are two types of courses: (i) a two-year university based one; and (ii) a shorter course for those with more extensive clinical experience. The content and the cost of the course varies from place to place and the Department of Health, Education and Welfare is the major source of funds for student help. There are three categories of physician assistants based on medical knowledge and experience, but all carry out services previously exclusive to the physician and, in general, both physicians and patients have

found their work satisfactory. The majority of physician assistants work with physicians in primary care specialties, providing a wide range of routine patient care in group practices or hospital of inner cities or rural areas. They are increasing in number and provided they do not attempt to compete with physicians, employment prospects should be good for the future.

ANCILLARY STAFF

1443. MILLER, B. **Custodians climb career ladder through intensive training program.** *Hospitals*, Chicago, 1979, April 16, vol. 53, no. 8, pp. 128-130.

All 210 custodial staff at the University of Houston Medical Center participate in an intensive on-going training programme that is designed to educate, motivate and stimulate employees by giving them a sense of dignity in their job, an opportunity for personal and professional development, and continuing instruction in specific skills. The reputation of the programme has led other hospitals to send staff to the courses, whenever space permits. The programme includes: a 40-hour, one-week basic training course; a three-day refresher course for custodians at regular intervals; a 160-hour supervisory development course, offered over a two-year period; and a four hours per month professional development course. Staff may only be promoted if they have passed the necessary courses. The programme has led to reductions in the number of staff, in the staff turnover rate and in absenteeism.

ORGANIZATION AND ADMINISTRATION

See also Abstract Nos. 1414, 1422, 1439, 1505, 1518

1444. TOOMEY, R. E., STAVROS, J. C. and SANDERS, D. S. **Multi-institutional arrangements: hospitals' move toward systems gains momentum.** *Hospitals*, Chicago, 1979, April 1, vol. 53, no. 7, pp. 154-157, 192.

The health care field in the United States continues to restrict itself through multi-institutional and sharing systems that aim at ensuring improved and cost-effective services. The 1978 literature discussed a wide variety of multi-institutional arrangements, ranging from rural to urban to regional arrangements, from networks formed by religious orders to investor-owned hospital chains, and from 'condominium' arrangements to shared services. A list of 49 references to the literature is included.

GOVERNING BODIES, COMMITTEES

1445. UMBDENSTOCK, R. J. **Governance: trustees are closing the gap between hospitals and consumers.** *Hospitals*, Chicago, 1979, April 1, vol. 53, no. 7, pp. 111, 113-115.

The public at large is looking more and more to hospital trustees as their advocates in the hospital system. Trustees are accepting the challenge this presents, believing that they are in the best position to cement the relationships between the hospital and

the population it serves. This heightened activity by boards might well be viewed as a symbolic representation of the layman's ability to participate equally in the determination of his own medical destiny. The 1978 literature suggests that public trust and acceptance begin with members of the public sitting around the board table.

ECONOMICS OF HOSPITAL MANAGEMENT

See also Abstract Nos. 1449, 1485, 1486

1446. SCHRAMM, C. J. **Regulating hospital labor costs: a case study in the politics of state rate commissions.** *Journal of Health Politics, Policy and Law*, Durham, N.C., 1978, vol. 3, no. 3, pp. 364-374.

American hospitals estimate that they spend 55 per cent of their total budget on salaries. Some attempts have been made by state government to fix rates in collective bargaining but some doubts are raised as to their long term ability to do so. The authors conclude that collective bargaining is increasingly a multilateral process but the value of this state intervention is doubtful.

1447. ELLIS, B. **Energy: hospitals apply total management approach.** *Hospitals*, Chicago, 1979, April 1, vol. 53, no. 7, pp. 79-81.

Realization that the energy crisis is likely to persist, has led hospitals to produce concrete plans and take positive action for dealing with the situation; the total energy management approach is the strategy of choice. Examples of savings which have been achieved are given. Facilities in the planning stages or those recently constructed are being designed innovatively with energy management as a primary design constraint. Flexibility, adaptability and innovation seem to be the key words in describing hospitals' efforts for dealing with the energy problem.

BED OCCUPANCY, ECONOMIC USE OF BEDS

See also Abstract No. 1463

1448. NEW ZEALAND. DEPARTMENT OF HEALTH. DIVISION OF HOSPITALS AND MANAGEMENT SERVICES AND RESEARCH UNIT. **Planning guidelines for hospital beds and services.** Wellington, Department of Health, 1977, [iii], 44pp.

Internationally there is considerable variation in the beds to population ratio, even between countries with similar social and economic structures. The New Zealand government has found no universally satisfactory ratio but notes that in western countries the hospital bed to population ratio is falling, with greater emphasis placed on day care, out-patient care, domiciliary services and community health. Guidelines are given for provision in various specialties, also for day care, private beds and extra-mural services. The need for flexibility in applying the guidelines is stressed and some basic planning criteria given.

1449. FAHLE, L. D. **Careful study and management can cut low-occupancy costs.** *Hospitals*, Chicago, 1979, March 16, vol 53, no. 6, pp. 75-78, 175.

Bed occupancy is now only a problem in United States hospitals when reimbursement is inadequate to finance existing capital debt, or when it increases costs. Occupancy rates are a combination of many factors, including: (i) capacity; (ii) length of stay; (iii) changes in patient mix and treatment patterns; and (iv) allocation of beds by service or specialty. Occupancy of 90 per cent is a realistic goal, but a rate of only 75 per cent does not necessarily suggest inefficiency. A careful analysis of the reasons for low occupancy must be made before an administrator can decide on appropriate action. The analysis should include: (i) recording the hospital's daily census; (ii) staff resources; and (iii) the frequency distribution of the average daily census by service and unit. Attempts must be made to reduce random admission and increase the number of scheduled patients. Patterns of staffing and length of stay should also be examined. Once the demand has been clarified, some units may need to be closed or merged. Alternatively, the hospital's services could be marketed in areas not adequately served.

APPOINTMENT SYSTEMS, WAITING LISTS

1450. WILLIAMS, B. T. **Admission to hospital and the day of the week.** *Public Health*, London, 1979, May, vol. 93, no. 3, pp. 173-176.

Hospital admissions in the Trent area for a year were studied. In non-psychiatric hospitals the numbers admitted from waiting lists peaked on Mondays and fell gradually during the week. Emergency admissions also peaked early in the week, with a noticeable drop at weekends. An even greater drop at weekends was evident in psychiatric admissions, with peaks on Mondays and Fridays. Organizational factors are suggested to account for some of the variations.

ELECTRONIC DATA PROCESSING

See also Abstract Nos. 1416, 1453, 1473, 1497, 1512, 1517, 1520

1451. DELMOTTE, A. DISH: een dynamisch geïntegreerd systeem voor zieken-huizen. **[DISH: a dynamic integrated system for hospital use.]** *Hospitalia*, Brussel, 1979, vol. 23, no. 1, pp. 28-31.

The Dynamic Integrated System for Hospitals (DISH) is a computer-based system of use in hospital administration. It has five functions: (i) patient administration (admission, in-patient stay and discharge); (ii) laboratory administration (including records of test requests, lists of tests, recording results, making reports, statistics, and quality control); (iii) costs and invoicing of technical services; (iv) costs and invoicing of operations; and (v) financial records and payments. Each of these functions is briefly described.

MEDICAL RECORDS

See also Abstract Nos. 1451, 1456, 1502, 1515

1452. KING EDWARD'S HOSPITAL FUND FOR LONDON. **A handbook for nurse to nurse reporting.** (Project Paper No. 21) London, King's Fund Centre, 1979, [iv], 23pp. £0.25

This project paper deals with both verbal and written reports and with the content, classification and confidentiality of the nursing record. It also discusses the relationship between the nursing record and the nursing process. The guidelines have been written for nurses working in acute specialties but can be applied elsewhere. The Department of Health and Social Security have circulated the booklet to promote discussion as part of their series on standards of nursing care.

1453. HEASMAN, M. A. and CLARKE, J. A. **Medical record linkage in Scotland.** *Health Bulletin*, Edinburgh, 1979, May, vol. 37, no. 4, pp. 97-103.

The objectives, methods and uses of a system of medical record linkage developed in Scotland are described. The system uses records required for routine statistical purposes and no additional data collection is involved. To safeguard confidentiality names of patients are kept separate from other data and the two sets of data are only brought together for specific linkage runs. Other safeguards are also used and the authors stress the need of this information for epidemiological research.

1454. CARD, W. I., SIRCUS, W. and SMITH, A. N. **Evidential value of the hospital record in clinical decision making.** *British Medical Journal*, London, 1979, May 19, vol. i, pp. 1305-1308.

Medical records constitute a valuable source of information, relevant to current and future decisions. The survey reported here took the records of 53 patients readmitted to a gastrointestinal unit. For each item of evidence taken from the records the following were calculated: the evidential weight; the irrecoverability; and the expected benefit accruing to the patient from its availability. The authors conclude that the evidence worth recording in the event of subsequent hospital admission could be largely specified for each diagnosis and each operation. The record should be brief and numerically coded.

1455. SPRI. Mikrofilmarkivering av patientjournaler. **[Microfilming of medical records.]** (Spri Råd 4.9) Stockholm, Spri, 1979, 38pp.

It is estimated that some 10 miles of extra shelving are required each year to accommodate patient records in Sweden. Although weeding of records after 20 years is allowed there is still a massive growth of records. Experiments with microfilming at Helsingborg and Vänersborg general hospitals have been successful and an account is given of their procedures. An appendix gives a checklist for the introduction of a microfilming system.

HOSPITAL STATISTICS

1456. GEORGE, A. M. and MADDOCKS, G. B. **Accuracy of diagnostic content of hospital activity analysis in infectious diseases.** *British Medical Journal*, London, 1979, May 19, vol. i, pp. 1332-1334.

Hospital activity analysis (HAA) is a computer-based information system that allows the administrative, personal, and clinical details of patients to be brought together for analysis. In this study 2,151 cases were selected by HAA and the clinical notes checked by a doctor. Nearly 20 per cent of the diagnostic codings were found to be wrong and therefore it is suggested that clinicians should routinely complete the diagnostic sections of HAA forms.

HOSPITAL ACCREDITATION AND SIMILAR SCHEMES

See Abstract No. 1549

PUBLIC RELATIONS

See also Abstract No. 1445

1457. ALLAN, B. M. **Human relations: will humanism and public service survive?** *Hospitals*, Chicago, 1979, April 1, vol. 53, no. 7, pp. 117-118, 120, 122.

Escalating costs, an explosion of new knowledge, technological advances, increased bureaucracy and specialization in health care are threatening to promote the ethos of business and science at the expense of humanity and public service. The 1978 literature shows how hospitals are trying not only to provide high-quality service, but also to provide it in ways that acknowledge the impact of illness on the patient and his family, to ensure the active participation of the patient and his family in the care received, and facilitate the patient's return to his home and community.

LEGAL ASPECTS OF HOSPITAL ADMINISTRATION

See also Abstract Nos. 1464, 1493

1458. MARTIN, C. R. A. **Law relating to medical practice.** 2nd edition. Tunbridge Wells, Pitman Medical, 1979, xlii, 614pp. £35.00

This new edition includes legislation passed between 1973 and 1978 and reflects the growing impact of European Community legislation. As it is intended as a reference work there is a general index, but individual chapters can stand in their own right. The first chapter deals with registration and in particular the effects of the Medical Act 1978. There are four chapters on the National Health Service dealing with: hospital practice; general practice; mental health; and community health. Tables of cases and legislation are included.

1459. BOSK, C. L. **Forgive and remember: managing medical failure.** Chicago, London, University of Chicago Press, 1979, x, 236pp. £9.75

There has long been concern for the maintenance of high medical standards and this book provides an account of contemporary surgical practice and offers specific recommendations for its improvement. The sociological context and professional hierarchy are shown to be major factors in setting and keeping standards. The author shows that errors of judgment and skill which harm patients are considered to be less serious by a surgeon's peers than unorthodox behaviour or refusal to accept standards set by the hierarchy.

FINANCE AND ACCOUNTING

See also Abstract Nos. 1405, 1449

1460. BOOGERT, J. A. van den. De ziekenhuisdirecteuren en de kostenbeheersing. **[Hospital administrators and financial control.]** *Ziekenhuis*, Utrecht, 1979, May 2, vol. 9, no. 9, pp. 208-212.

The paper is mainly the report of a speech at a meeting of the Association of Hospital Administrators in the Netherlands. To act more cost effectively, the author urges the introduction of the Commissioners Council model for hospital administration, whereby management has its own powers and is no longer subordinate to the hospital board. To make the public more cost-conscious is the duty of politicians and there should be agreement on how much of the national income can be available for health services. Only a reduction in consumption and far reaching changes in the system can effectively cut down costs. Increasingly costly diagnostic procedures and expensive equipment should be viewed with caution, as these often provide work for staff without benefiting the patient and are sometimes even counter-productive. The interests of hospitals and consultants do not always coincide, and management should form a counterweight against this group. Structured and frequent consultations between authorities, the medical profession, health insurance companies and patients' representatives are suggested, as well as more effective supervision of specialists' treatment by insurance companies, less bureaucratic paperwork and a re-consideration of the non-profit making character of the hospitals.

1461. ERESIAN, J. G. **Financial management: hospitals need sophisticated techniques.** *Hospitals*, Chicago, 1979, April 1, vol. 53, no. 7, pp. 99, 103, 105, 107.

The major financial issues facing hospitals include inflation, voluntary cost containment, threats of federal cost controls, federal wage and price guidelines, state prospective rate and budget review programmes, increasingly restrictive third-party reimbursement, and increased regulation over reporting, accounting, free care and reimbursement. Many of these problems are discussed in the 1978 literature. Some of the highlights reviewed in this paper cover: financial planning and forecasting, cost containment, and improved financial management.

FINANCE

See also Abstract No. 1403

1462. BERMAN, H. J. and WEEKS, L. E. **The financial management of hospitals.** 3rd edition. Ann Arbor, Mich., Health Administration Press, 1976, xiii, 674pp. $15.00

The authors have attempted to revise and update the previous editions of this book to reflect the changing health care financial environment. The volume is in five parts: (i) introduction; (ii) sources of operating revenues; (iii) working capital management; (iv) budget; and (v) future trends in hospital financing. A useful glossary is given and the bibliography includes a section of abstracts.

COSTS

See also Abstract Nos. 1446, 1447, 1486

1463. POELS, A. T. J. De financiële gevolgen van het vigerende normeringssysteem in de intramurale gezondheidszorg. **[The financial consequences of the present standardization system in hospital care.]** *Ziekenhuis*, Utrecht, 1979, May 16, vol. 9, no. 10, pp. 240-246.

Hospitals are asked to co-operate with the government policy of cutting down expense by reducing length of patient stay and number of treatments. The paper tries to demonstrate that the present system of calculating hospital finance, based on the number of patient days and taking the patient day as a norm, is becoming illogical. The norm decides the amount of costs allowed and is often related to staff salaries. The cost calculation of a patient day is directly based on nursing charges and indirectly based on costs of other services, such as administration, domestic services and transport. A reduction in the number of patient days will reduce the total costs and consequently the expenses allowed for other services. The costs of these services, however, might rise particularly if a shift occurs from clinical to polyclinical work. A standard system of calculating finances for the many different types of hospitals, whose functions are continually changing, should be based on the factors which create the costs, including a way to compensate for over and under estimates. If the present system is to be maintained, the unwanted side effects must be eliminated. The past five to seven years have seen a considerable drop in the average length of stay. The changes created much internal tension, and the problems have yet to be solved.

1464. SALMAN, S. L. **A systems approach can ensure high-quality care and low costs.** *Hospitals*, Chicago, 1979, March 16, vol. 53, no. 6, pp. 79-82.

Risk management schemes in hospitals in the United States are necessary not only because some state laws require them, but also because they help to improve patient care and reduce the costs of malpractice suits. To establish a systems approach to risk management, an effective incident reporting system must be developed which encourages employees to report untoward happenings. Two incident review committees should be set up, one to deal with medical matters concerning patients and one with

safety matters concerning employees and visitors. The functions of the medical incident review committee should include: (i) reviewing all incident reports; (ii) reviewing all deaths within the hospital; and (iii) acting in an advisory capacity to the risk management team and the administration as a whole. The committee must establish their credibility, especially among the medical staff. Legal involvement will depend upon the policy of the individual hospital and the manner in which it is insured.

SUPPLIES AND STORES

PURCHASING

1465. LANDGARTEN, S. **Medical staff helps set priorities for equipment purchases.** *Hospitals*, Chicago, 1979, March 1, vol. 53, no. 5, pp. 89-90.

In order to allocate efficiently its limited resources and to contain costs, Hillcrest Medical Center, Tulsa, Oklahoma, has devised a new system for purchasing medical equipment. Instead of allocating a fixed sum each year for medical equipment, the medical equipment budget is extracted from the capital budget of each unit. When requests are made for new equipment they are accepted or denied by the relevant medical staff committee. Requests are then submitted to a subcommittee who assign them to one of four categories: (a) need apparent and equipment to be purchased during the quarter of the year requested; (b) insufficient information, more data requested; (c) (i) need apparent, but currently less urgent than category (a); (c) (ii) purchases requested in anticipation of the end of the life span of equipment in use; and (d) request does not currently warrant allocation of funds. The categorized requests are then submitted to the full medical equipment priority committee for further consideration. The recommendations of the committee are submitted to the medical executive committee and the finance committee for approval. Requests for equipment that costs more than $2,500 are submitted individually to the finance committee.

ECONOMIC USE OF SUPPLIES, DISPOSABLES

See Abstract No. 1491

CATERING, DIETETICS, KITCHENS

HOSPITAL CATERING

See also Abstract Nos. 1470, 1472

1466. YVON, P.-J. and BRAKA, B.-R. Le système G.A.M.M.—Alimentation. **[The G.A.M.M. food system.]** *Techniques Hospitalières*, Paris, 1979, May, vol. 34, no. 404, pp. 75-81.

Patients' orders for meals are now computerized in six Assistance Publique hospitals. This is done by using the GAMM (Administrative and medical management of patients)

system. The four main stages are: drawing up the menus; ordering the individual meal; checking and processing the order; and preparing check sheets and worksheets for the departments concerned. The advantages of computerization are: safety (for instance if a patient on a particular diet orders one contra-indicated dish, the computer rejects the whole order); less waste due to over-ordering; automated analytical accounting of food costs; and improved management. This description of how the system works contains seven computer print-outs and meal order cards.

1467. CARRACHA, J. Perspectives nouvelles de l'approvisionnement des denrées et produits alimentaires à l'hôpital. **[New aspects of food supply in hospital.]** *Techniques Hospitalières*, Paris, 1979, May, vol. 34, no. 404, pp. 49-53.

This is a short review of recent advances. Food accounts for 15-17 per cent of all supplies in the hospital. The quantity and quality of the food required have changed during the past few years, and so has the food market. Many food products are standardized, there are new forms of distribution and marketing, and the development of the 'agro-food' industry has meant that deep-frozen cut vegetables, frozen filleted and breadcrumbed fish, sauce mixes, and ready-to-eat courses are available in bulk. Packaging and labelling have also improved. It should be possible for hospitals to buy food at markets and trade fairs and to make group purchases of dry goods.

1468. NICOLAS, M., CHATAIGNIER, R. and CHARVIN, A. Préparation et fabrication des repas à l'hôpital. **[Preparation of hospital meals.]** *Techniques Hospitalières*, Paris, 1979, May, vol. 34, no. 404, pp. 83-89.

The preparation of hospital meals and the kitchen facilities required will obviously vary with the size of the hospital. The authors list the equipment needed in the butchery department and vegetable preparation room in a large hospital and discuss kitchen design. They describe the separate zones (cooking, dietetic, cold preparation, pastry-making, utensil store, and coffee-making room), the equipment required in each, and the criteria on which a choice of equipment is based. They provide a table showing the quantities cooked per hour in 'Automat-Transfer' steamers, braisers, and ovens, and a diagram showing the intercommunications between the different parts of a hospital catering department.

1469. ROZIER, J. and JOUVE, J.-L. Technique et hygiène de la préparation des viandes en milieu hospitalier. **[Hygienic methods for the preparation of meat in the hospital.]** *Techniques Hospitalières*, Paris, 1979, May, vol. 34, no. 404, pp. 56-59.

Technological advances have meant that few hospitals now employ their own butchers since they can easily obtain ready-cut, prepacked meat. Mince is generally of a high quality and the amount of fat in it is subject to control. The authors profer advice on how meat should be cooked, and stress the dangers of infection, particularly due to *Chlostridium perfringens*, Salmonella, and Staphylococcus. The source of infection is rarely the meat itself, but generally the butcher, the cook, the kitchen staff, or else dirty surfaces, machinery, or clothing. After cooking, meat should be cooled quickly or kept at a temperature higher than that at which bacteria can multiply. Fresh and frozen uncooked meat must be stored at the correct temperature on delivery, and hermetically sealed receptacles should be used for left-overs. The kitchen walls and floors should always be clean, and personal hygiene among kitchen staff is essential.

DIETETICS IN THE HOSPITAL

1470. PEQUIGNOT, G. L'évolution de l'alimentation hospitalière vue par un médecin. **[The development of hospital catering as seen by a doctor.]** *Techniques Hospitalières*, Paris, 1979, May, vol. 34, no. 404, pp. 63-65.

This is a review of the changes and improvements in hospital catering over the past 30 years. In the 1950's and 1960's research was done on the dietary requirements of hospital patients, schools of dietetics were established, and dietitians appointed. A survey in 1964 among 1,000 patients in Parisian hospitals, showed that 25 per cent of diets contained less than 1,500 calories and that more than 20 per cent of patients refused to eat dishes such as tinned fish and cooked meats. Recommendations were made to the effect that more milk, cheese, eggs, fruit, fresh meat, and fish be provided, and the range of special diets was reviewed and simplified. By 1971 only 27 per cent of patients were on special diets as compared with 44-51 per cent seven years previously. The average daily food intake had risen from 34g animal protein in 1964 to 53g in 1971.

1471. MARY, Y. and THIMOTHÉE, M. Le diététicien à l'hôpital. **[The dietitian in the hospital.]** *Techniques Hospitalières*, Paris, 1979, May, vol. 34, no. 404, pp. 66-67.

The dietitian's duties in the hospital include: planning the menus (ordinary, diabetic, salt-free, low-energy, etc.); estimating the quantities of food to be purchased; checking the quality of food on delivery; advising on hygiene in the storage, preparation, and distribution of food; organizing special diets; training the staff who take the patients' orders for meals; and food education for patients. The authors would like dietitians to be members of the working parties which plan new facilities for the hospital food sector, compulsory training in food hygiene for staff, and an increase in the number of dietitians employed in hospitals.

1472. EBELY, G. La prise de commandes de repas sur carte. **[Meal orders from a diet sheet.]** *Techniques Hospitalières*, Paris, 1979, May, vol. 34, no. 404, pp. 69-74.

This is a detailed description of a system whereby the patient orders each meal on a special card which contains his name, ward or room number, meal (breakfast, lunch, supper), type of diet, and his selection. The card accompanies his tray through the kitchen, is returned with the meal and is then destroyed. Seven card types are illustrated, and a diagram shows how the cards are routed through the catering department.

1473. FORD, M. G. and WESLEY, N. W. **Dietitians improve patient care with computerized selective menu.** *Hospitals*, Chicago, 1979, March 1, vol. 53, no. 5, pp. 76-79.

The 541-bed Fairview General Hospital, Cleveland, has developed a computer-based system that has met five goals: (i) to provide a selective menu for each patient; (ii) to ensure accuracy in filling diet prescriptions; (iii) to free the clinical dietitians for professional tasks related to improving the nutritional care of patients; (iv) to ensure that 100 per cent of the patients receive direct attention from the dietitians; and (v) to contain costs. A systems designer watched dietitians at work to understand their

activities and formulate computer terminology for them. The dietitians coded more than 850 recipes according to their appropriateness for the 80 diet modifications. After substracting the computer costs, the system's projected annual savings are $32,700.

KITCHENS

1474. BEAULIEU, D. Installation d'une cuisine: le point de vue de l'ingénieur. **[Setting up a kitchen from the engineer's point of view.]** *Techniques Hospitalières*, Paris, 1979, May, vol. 34, no. 404, pp. 127-132.

In planning a hospital kitchen, consideration should be given to the following points: access for users and suppliers; the hygiene regulations; requirements specific to the hospital (irregular hours for staff, distance between kitchen and wards, disinfection); and technical regulations (fire safety, waterproof floor coverings, access for the handicapped). Detailed plans should be prepared of the water, electricity, gas, and ventilation networks, and sites for all the equipment specified. The author lists the cooking and washing equipment required and stresses the importance of a safe and efficient ventilation system.

HYGIENE IN THE HOSPITAL KITCHEN

1475. ADROIT, J. L'hygiène dans les cuisines des collectivités. **[Hygiene in hospital kitchens.]** *Techniques Hospitalières*, Paris, 1979, May, vol. 34, no. 404, pp. 54-55.

The principles on which the prevention of food contamination are based are: separate routes for clean and dirty material, separate lifts for food and dustbins; the use of correct temperatures during storage; and correct preparation of hot and frozen dishes. Food should not be prepared the day before unless reheating is part of a coherent system; food should be cooled quickly and dishes should be either cold or hot, but not warm, when transferred from the kitchen to the ward. Washbasins with hot water, non-manually operated taps, soap dispensers and towel dispensers should be provided for kitchen staff, and thorough training in hygiene is essential.

WASHING UP, CLEANING OF EQUIPMENT

1476. RODRIGUEZ, M. Le traitement de la vaisselle. **[Washing-up.]** *Techniques Hospitalières*, Paris, 1979, May, vol. 34, no. 404, pp. 112-118.

This is a well-illustrated account, with eight figures and five diagrams, of the different methods now available for washing dishes, cooking utensils, and food trolleys. Centralized dish-washing is preferred since fewer staff are required and their work can be supervized more easily. Left-overs are removed from the ward immediately in closed trolleys, thus reducing the risks of infection. Conveyor-type dishwashing machines are recommended; the different types of conveyor are described and illustrated.

LAUNDRIES AND LINEN SERVICE

LAUNDRIES

1477. MATTHEWS, D. **Can you cope . . . if deprived of laundry and linen services?** *Hospital Equipment & Supplies*, London, 1979, April, vol. 25, no. 4, pp. 50, 52-53.

This paper discusses ways in which hospitals can (if possible) avoid or at least cope with crises in the provision of laundry and linen services. They include: provision of good working conditions; adequate fire prevention and protection measures; a comprehensive linen service; distribution, rather than centralization, of linen stocks; establishment of fall-back arrangements to conserve linen stocks; availability of commercial laundry support; use of launderettes; maximize laundry capacity by installing up-to-date equipment; and automation of clean linen assembly.

HOSPITAL DOMESTIC MANAGEMENT

See Abstract No. 1443

DOMESTIC WORK

1478. SCHWUGER, M. J. and KURZENDÖRFER, C. P. Physikalisch-chemische Grundlagen der Reinigung harter Oberflächen. **[Physico-chemical fundamentals in the cleaning of hard surfaces.]** *Zentralblatt für Bakteriologie, Parasitenkunde, Infektionskrankheiten und Hygiene*, 1. *Abt. Orig. B.*, Stuttgart, 1979, March, vol. 168, no. 1-2, pp. 55-72.

The primary process in the cleaning of hard surfaces is the adsorption of the active component of the detergent at the interfaces: liquid/gas; liquid/liquid; liquid/solids. This induces secondary processes which remove the soil from the surface of the substrate. The first requirement is that the dirt and substrate be well wetted by the cleaning solution as a result of surface tension reduction and adsorption. Other secondary processes depend on the type of soil. The essential active components of detergents are those which alter the interfacial tension of liquids and solids and the complexing agents.

1479. LITTLE, I. **Sanitary science or hygiene?** *Hospital Equipment & Supplies*, London, 1979, April, vol. 25, no. 4, pp. 28-29.

The increasing sophistication of cleaning technology and its link with hygiene or sanitary science are discussed. Five reasons are suggested for the changes which are taking place: (i) natural materials have proved to be not inexhaustible and have had to be superseded by man-made fabrics, requiring greater care in selection of cleaning materials; (ii) mechanical aids are necessary to reduce labour resources, the most expensive item in the cleaning budget; (iii) the change in the vulnerability of the hospital patient; (iv) changes in people's expectations; and (v) an awareness of the effect of processes on the wider environment.

HYGIENE IN THE HOSPITAL

See Abstract Nos. 1475, 1479

HOSPITAL INFECTIONS

1480. ALEXANDER, M. Erregerwechsel und seine Bedeutung im Krankenhaus. **[Changes in hospital infection and its significance in the hospital.]** *Zentralblatt für Bakteriologie, Parasitenkunde, Infektionskrankheiten und Hygiene*, 1. *Abt. Orig. B.*, Stuttgart, 1979, March, vol. 168, no. 1-2, pp. 18-36.

This is a detailed analysis of the changes in the incidence of micro-organisms responsible for hospital infections in a Berlin hospital within the past 20 years. In the medical department Proteus, Pseudomonas, Klebsiella and Candida increased while Staphylococcus, Streptococcus, *Streptococcus pneumoniae*, Clostridium and *Neissera meningitidis* decreased. In the nephrology department there were significant increases in Proteus and Pseudomonas and a significant decrease in Enterococcus. The resuscitation department showed increases in Candida, Pseudomonas, Klebsiella, Enterobacter and *Streptococcus pneumoniae* but decreases in *Staphylococcus aureus*, Enterococcus and Streptococcus. The urology clinic showed significant increases in Pseudomonas and Enterobacter but significant decreases in *Staphylococcus aureus* and streptococci. In the neurosurgery clinic gram-negative micro-organisms increased from 8.3 to 51.5 per cent.

1481. WINNER, H. I. **Microbiology in patient care.** 2nd edition. London, Hodder & Stoughton, 1978, viii, 175pp. £1.95

The subject of microbiology looms large in the management of patients in a modern hospital, in the use of modern instruments, apparatus and surgical materials, and in the general deportment of hospital staff. The author aims to give staff, particularly nurses, sound guidance that will help them in their everyday work. An index and glossary are included.

1482. LIGHT, I. J. **Postnatal acquisition of herpes simplex virus by the newborn infant: a review of the literature.** *Pediatrics*, Evanston, 1979, March, vol. 63, no. 3, pp. 480-482.

A review of the literature shows that a total of 24 newborn infants have acquired herpes simplex virus after birth; 66 per cent of these have died. Transmission of virus from mothers, adults (including staff) other than the mother, and other infants has been reported. In order to prevent this infrequent but life-threatening illness, separation of the newborn infant from any person with active lesions caused by herpes simplex virus is recommended.

1483. SCHREINER, R. L. and others. **Environmental contamination of continuous drip feedings.** *Pediatrics*, Evanston, 1979, Feb., vol. 63, no. 2, pp. 232-237.

An investigation at Indiana University School of Medicine showed that 33 per cent of 576 samples obtained from drip chambers were contaminated. Using the same feeding system with a broth of *Escherichia coli* to simulate the stomach no specimens

were contaminated, thereby eliminating the ascending route as a possible source of infection. Milk changed every 24 hours had the same rate of infection as milk changed every 12 hours. A correlation between organisms on the hands of nurses and those in the drip chambers was found. The authors emphasize the need for meticulous care in handling techniques.

SOURCES OF INFECTION

See also Abstract No. 1488

1484. GRÜN, L. Möglichkeiten und Grenzen der Ermittlung von Infektionsquellen. **[Possibilities and limitations in the localization of sources of infections.]** *Zentralblatt für Bakteriologie, Parasitenkunde, Infektionskrankheiten und Hygiene*, 1. *Abt. Orig. B.*, Stuttgart, 1979, March, vol. 168, no. 1-2, pp. 45-54.

Checks on patients, staff and equipment can reveal the presence of micro-organisms causing latent hospital infections. Auto-infections, while affecting hospital infection statistics, have no direct connection with a stay in hospital or the hospital environment. Taking as examples two staphylococcal epidemics the author discusses the need to differentiate 'monogenic' infections (those caused by a single bacterial species) from 'heterogenic' (those caused by a number of species, different biotypes, or phage types of the same species). Control measures can be adopted only when the epidemiology and the source of infection are known.

PREVENTION AND CONTROL

See also Abstract Nos. 1469, 1482, 1532

1485. LACEY, R. W. **Hospital antibiotic policy in a health district.** *British Medical Journal*, London, 1979, May 26, vol. i, pp. 1389-1391.

King's Lynn Health District restricted the range of antibiotics used over a two-year period. Six antibiotics accounted for 98 per cent of use; they were ampicillin, cloxacillin, cephradine, penicillin, erythromycin and oxytetracycline. Gentamicin was not used topically. Apart from high levels of resistance to ampicillin there were no problems and no major epidemics of cross-infection occurred. With this policy antibiotic consumption declined and the total true cost of antibiotics fell from £16,361 in 1976 to £10,448 in 1978.

1486. SCHAFFNER, W. **Infection control: time to justify the costs.** *Hospitals*, Chicago, 1979, April 1, vol. 53, no. 7, pp. 125-126, 128, 130.

Recent literature on hospital infection indicates that: it is a problem in small as well as large hospitals; the patient's underlying disease is a major determinant of the likelihood of acquiring (and succumbing to) hospital infection; too little evidence exists on the efficacy of control programmes; attempts to reduce the use of antibiotics have not always been successful; and routine bacteriological monitoring of the inanimate hospital environment and of hospital staff continues despite discouragement by the American Hospital Association. Despite current controversies infection control programmes will always be needed. As infections occur in patients, they must remain the focus of control programmes.

1487. STEUER, W. Krankenhausinfektion: Hepatitis—Möglichkeiten, Verhütung und Bekämpfung. **[Risk, prevention and control of hepatitis infections in the hospital.]** *Bundesgesundheitsblatt*, Köln, 1979, March 23, vol. 22, no. 6/7, pp. 116-120.

The special problems of hepatitis infection in the hospital are outlined and infection routes and possible prevention measures are listed. As well as discussing the special measures required for such areas as dialysis departments and isolation wards, the paper lays stress on the need to observe the basic principles of patient care and hygiene as a means of preventing infection.

1488. WEISE, W. Hepatitisübertragung durch therapeutische Substanzen menschlichen Ursprungs. **[Transmission of hepatitis by means of therapeutic substances of human origin.]** *Bundesgesundheitsblatt*, Köln, 1979, March 23, vol. 22, no. 6/7, pp. 120-123.

In spite of intensive efforts it has not yet been possible to eliminate entirely the risk of transmitting hepatitis via therapeutic substances of human origin. The following recommendations are put forward with the aim of controlling this hazard: (i) adherence to guidelines for selecting blood donors; (ii) the use of HBsA-negative blood only; (iii) the use of coagulants from a single donor or very limited numbers of donors; (iv) prothrombin complex preparations to be given exclusively to haemophilia B patients; and (v) the labelling of drugs with a hepatitis risk to show the source of the materials used.

1489. WERNER, H.-P. Die Bedeutung hygienisch-bakteriologischer Untersuchungen zur Ermittlung des "Hygiene-Status" in Krankenhäusern. **[The importance of bacteriological hygiene tests for determining the 'hygiene status' in hospitals.]** *Zentralblatt für Bakteriologie, Parasitenkunde, Infektionskrankheiten und Hygiene, 1. Abt. Orig. B.*, Stuttgart, 1979, March, vol. 168, no. 1-2, pp. 37-44.

The most important measures for the control of hospital infections are the improvement of nursing, therapeutic and diagnostic procedures and adequate disinfection or sterilization of instruments and apparatus. The setting up of a hygiene committee to work out a plan, train the staff and disseminate information is imperative. The collection of epidemiological data and microbiological analyses are also important. This work divides into four groups: 'non-selective' environment analyses; 'selective' environmental analyses; regular checks on important sources of infection; and regular microbiological analyses of bronchial secretions, wound swabs, drainage fluids, and catheters.

STERILIZATION

See also Abstract No. 1495

1490. SPICHER, G. Zur desinfektion bei Virushepatitis. **[Disinfection in cases of viral hepatitis.]** *Bundesgesundheitsblatt*, Köln, 1979, March 23, vol. 22, no. 6/7, pp. 114-116.

It is recommended that disinfection of hepatitis virus should be carried out by the damp heat method. For the disinfection of instruments, sterilization by boiling for

15 minutes at 100°C suffices. In the case of special processes, such as thermal disinfection of laundry, 10 minutes at 90°C should be effective. Chemical disinfectants should be used only when for overriding reasons, such as heat sensitivity, damp heat cannot be used.

1491. TURNER, T. D. **Hospital usage of absorbent dressings.** *Pharmaceutical Journal*, London, 1979, May 19, vol. 222, no. 6022, pp. 421-422.

The Surgical Dressing Research Unit of the Welsh School of Pharmacy has been concerned with the evaluation of surgical dressings from both the quality control and assurance aspect and the more patient-associated aspect of product function and performance. The evaluation has followed a dual programme of investigation surveying the dressing products and associated nursing procedures and simultaneous evaluation of the performance of these products in clinical and comparative laboratory trials. This paper covers: classification of dressings; use; function; products and practices; and performance. The product which came closest to the requirements for a wound contact layer was a thin flexible pad of viscose fibres with a heat-bonded polythene surface. Although there is still room for improvement in certain aspects of its performance and presentation, it could be the precursor of a range of products which will act as a stimulus to a new wound dressing system. This system will be comparatively inexpensive in cost-effectiveness terms when measured against current total nursing costs and should make an important contribution to the welfare of the patient.

DISPOSAL OF WASTE

1492. PLANES, A. L'évacuation des déchets: l'hôpital tripode du Centre Hospitalier Regional de Bordeaux. **[Disposal of waste at the Bordeaux Regional Hospital Centre.]** *Techniques Hospitalières*, Paris, 1979, May, vol. 34, no. 404, pp. 119-125.

The author presents a detailed account of the waste disposal system in the 1,000-bed Tripode Hospital in Bordeaux, a 16-storey block with a six-storey technical block attached. Automatic compactors installed on each floor reduce the volume of the rubbish by a factor of as much as 40. The compacted rubbish is brought down in special lifts and transferred via an underground tunnel to the exit and thence to the incinerator. Left-over food is separated into liquid and dry matter; the former is washed away, the latter compacted and eventually incinerated. Paper and cardboard are recovered for recycling. Medical and surgical refuse is compacted and incinerated. The advantages of compacting are: ease of maintenance and transport; easier cleaning of rubbish skips; a reduction in the number of collections; fire safety; and improved hygiene.

SAFETY MEASURES

1493. LÜDTKE, P.-B. Sicherheitsfachkräfte im Krankenhaus und im Betrieb, Aufgaben, Rechtsstellung, Verantwortlichkeit. **[Safety officers in hospitals, duties, legal position, responsibilities.]** *Fortschritte der Medizin*, München, 1979, March 22, vol. 97, no. 11, pp. 479-480, 522.

Under West German legislation it is an obligation for firms (and this includes hospitals) to appoint industrial safety officers. These officers may be full-time members

of the staff or may be employed on a free lance or contract basis; they may be safety engineers or safety technicians. These officers advise the management on industrial safety and accident prevention, the acquisition and maintenance of equipment and the instruction of staff in the proper use of equipment. In the hospital a particular hazard may arise from the use of technical equipment: it is the duty of the safety officer to see that only equipment which corresponds to the latest developments in science and technology is acquired, and that staff are properly instructed in its use and maintenance.

1494. LEE, R. G. **Health and safety in hospitals.** *Medicine, Science and the Law*, Bristol, 1979, April, vol. 19, no. 2, pp. 89-103.

The article comprises a survey of non-surgical accidents to patients, staff and visitors. Legal liability is discussed, in particular the Health and Safety at Work Act 1974. The accident records in six hospitals are given, using data from over 3,000 report forms. Accidents occured mainly on the wards, accounting for some 791 incidents; at the other extreme only eight accidents were reported in the education centre, seven of them the result of students overbalancing on their chairs.

1495. NEVENHEIM, A. **Tests measure ethylene oxide risk to hospital's central supply staff.** *Hospitals*, Chicago, 1979, March 16, vol. 53, no. 6, pp. 147-148, 150.

Rochester (Minn.) Methodist Hospital conducted a series of tests to determine the ethylene oxide (EO) levels at various locations in its central sterile supply department (indicated on a plan) and in the operating suites. The results are discussed. It was determined that the following factors affect the diffusion of EO: (i) the volume of air—the more air the lower the concentration of EO; (ii) the number of cubic feet of air entering and leaving the room per minute—the greater the air flow, the lower the concentration of EO; (iii) the placement of the sterilizer—better under an exhaust vent rather than an intake vent; and (iv) exhaust procedures—extending the final exhaust cycle allows the EO to escape. Suggestions for reducing EO concentrations are: (i) increasing the airflow from 1,600 to 2,500 cubic feet per minute; (ii) introducing an 'end-of-cycle' filtered-air purging phase; (iii) developing a monitoring system; and (iv) introducing an in-service training programme.

ACCIDENTS, GENERALLY

1496. MANCHESTER UNIVERSITY. DEPARTMENT OF COMMUNITY MEDICINE. UNIT FOR CONTINUING EDUCATION. **Prevention of accidents in hospital; proceedings of a seminar held in conjunction with the Medical Commission on Accident Prevention; December 4th-5th 1978, Holly Royde College, Manchester.** (Chairman: A. J. Harding Rains). Manchester University, 1979, 33pp.

Hospitals are not safe sanctuaries, and accidents happen to patients, visitors and to the staff themselves. The Health and Safety at Work Act 1974 applies to hospitals though they have Crown exemption from prosecution. One of the contributors to the conference gives a description of the Health and Safety Executive's role. Several other

contributions deal with the hazards of infection, whilst the final paper is on health education in hospitals in relation to accident prevention.

ELECTRICAL ACCIDENTS

1497. NEUBURG, J. and others. **An automated electrical safety and preventive maintenance program.** *Journal of Clinical Engineering*, Diamond Bar, Calif., 1979, Jan./March, vol. 4, no. 1, pp. 71-75.

The 258-bed Miami Heart Institute's electrical safety and preventive maintenance program has been designed as a component (which may stand alone) of a large-scale, computer-based hospital information system. It is based on a dual-processor, medium scale digital computer (Xerox Sigma 9) controlled by the CP-V operating system with in-house modification. In the safety officer's room is a general-purpose, non-dedicated terminal complemented by a 120-character/second, desktop line printer. The operation of the system is described. It ensures regular scheduled routine inspections, preventive maintenance and, where applicable, calibration of the hospital's diagnostic, therapeutic and other electrical equipment. It also schedules and documents inspection of buildings, service equipment and grounding systems. The software consists of a single program which permits on-line entry, editing and display of information as well as automatic, unattended generation of printed forms.

ACCIDENTS IN GAS AND DRUG ADMINISTRATION

See Abstract No. 1513

FIRES AND FIRE PREVENTION

1498. KEIR, D. C. **Revised fire safety system cuts emergency response time.** *Hospitals*, Chicago, 1979, March 1, vol. 53, no. 5, pp. 80-81.

As Margaret R. Pardee Memorial Hospital, Hendersonville, N.C., expanded, fire safety responsibilities for the staff multiplied and overlapped. Confusion resulted, and a revised, simplified, and co-ordinated fire safety system was devised. Because the fire alarm system is located in the switchboard room, switchboard operators and relief operators were taught how to determine exact locations of problem areas by matching up signal lights on the fire panel with specific locations in the hospital. When the fire alarm rings in the hospital, it rings simultaneously in the fire department. As the firefighters arrive they are met at the emergency department entrance by the relief switchboard operator and directed to the fire. All fire department staff were escorted through the hospital pointing out the location of entrances and exits, ramps, sprinkler systems, and potential problem areas. Scaled floor plans were also supplied to the fire department. Hospital staff were thoroughly briefed on the system. Seventeen false alarms within one year, caused by a faulty sprinkler system, gave hospital staff ample opportunity to test the system and iron out unexpected problems.

PLANNING FOR MASS EMERGENCIES

See also Abstract No. 1410

1499. GERACE, R. V. **Role of medical teams in a community disaster plan.** *Canadian Medical Association Journal*, Ottawa, 1979, April 21, vol. 120, no. 8, pp. 923-928.

Two mock disaster exercises in London, Ontario, revealed the inadequacies of the local medical disaster teams. To co-ordinate these teams a medical on-site team composed of three emergency physicians was formed. One physician was to be responsible for the command post, in contact with the three hospitals in the area and the other rescuers. The second medical co-ordinator at the disaster site was to supervise the triage teams and the third, at the casualty collection area, was to supervise the appropriate order of treatment and evacuation. Each of the three hospitals was already responsible for providing a triage team and these teams were to be responsible one to each co-ordinator. The importance of communication systems, availability of medical supplies, identification of staff and the tagging of casualties is also discussed. The civic disaster planning committee should meet regularly and all those responsible for implementing any disaster plan should remain aware of its contents.

RADIATION HAZARDS

See Abstract No. 1410

THE PATIENT

WELFARE OF THE PATIENT

See also Abstract Nos. 1457, 1507, 1535, 1537, 1539

1500. BENNET, G. **Patients and their doctors: the journey through medical care.** London, Baillière Tindall, 1979, xiii, 217pp. £3.75

Illness has implications and a significance beyond the descriptions of pathology. The author attempts to show these and to indicate the special needs of both doctors and patients. The first chapters deal with illnesses and ways of looking at them not normally employed by doctors. Chapters three to 10 are mainly about patients, starting with the patient's first encounter with the doctor and following their putative journey through the medical machine—entering hospital, awaiting surgery, postoperative and intensive care, experiencing pain, disability and finally dying. Doctors are the subject of the last few chapters; the author discusses their high rates of suicide, divorce, alcoholism, drug abuse and psychiatric consultation, all of which contrast with their outward appearance of success and authority. The book is intended mainly for medical staff, to make them more aware of what they are doing and of the views of the patient.

1501. JONES, J. and others. **What the patients say: a study of reactions to an intensive care unit.** *Intensive Care Medicine*, Heidelberg, 1979, May, vol. 5, no. 2, pp. 89-92.

One hundred patients discharged from the intensive care unit at St Mary's Hospital in London were asked about their stay. In general, as in a 1970 study, most patients were satisfied with their stay. About a quarter of the patients reported difficulty in sleeping, other problems were pain, anxiety and noise. An important complaint was the lack of information given, something which should be remedied.

HOSPITAL SOCIAL WORK

1502. SOCIETY FOR HOSPITAL SOCIAL DIRECTORS. **Documentation by social workers in medical records.** Chicago, Ill., American Hospital Association, 1978, v, 14pp. $6.00

Thorough medical records are required to formulate a long term care plan for the patient, to protect the legal interests of all concerned (particularly in the U.S.A.) and to provide data for use in education and research. Some guidance is given on types of records, confidentiality and the particular requirements for social work records.

1503. KERSON, T. S. **Sixty years ago: hospital social work in 1918.** *Social Work in Health Care*, New York, 1979, vol. 4, no. 3, pp. 331-343.

Participation in the First World War combined with epidemics of influenza, tuberculosis and venereal disease placed great strain on the emerging hospital social work profession in the U.S.A. Despite these pressures a professional body was formed, several specialist journals began publication and educational schemes were begun. Having proved itself during 1918 the profession could face the future with confidence.

TRANSPORT OF PATIENTS

1504. VERHEES, L. A. Personenauto RAI 1979: minimale lengte patiëntencompartiment ambulances definitief op 2,45 meter. **[Passenger vehicle RAI 1979: minimum length of ambulance patient compartment fixed at 2.45 m.]** *Technische Gids voor Ziekenhuis en Instelling*, Amsterdam, 1979, April, vol. 48, no. 1147, pp. 219, 221.

On 1 July 1979 an act came into force with new technical regulations for ambulances and ambulance cars which are built on chassis designed for light vans and passenger cars. One aspect concerns the interior length of the patient compartment, which should be 260 cm. This length however is not suitable for ambulance cars, as it extends the compartment too far beyond the rear axle. At the request of various importers of ambulance cars the Government has now reduced this length to 245 cm. Exterior and interior measurements of several makes of ambulance cars are given in detail. Independent wheel suspension, strengthened brake discs and weighted shock absorbers are briefly described. Heating regulations require separately controlled heating systems for patient compartment and drivers cabin, and single liquid fuel heaters should only use diesel oil. A Leiden firm has introduced an electrical hydraulic lift system

for raising wheelchairs into ambulances, a special ceiling covering without sharp points and edges, and shock absorbing cushions at the back door to protect the wheelchair patient. An Arnhem firm has developed a new type of locking rail for wheelchairs, made of light aluminium, which reduces weight and thus increases the loading capacity of the ambulance car. The paper includes three photographs.

HOSPITAL CARE

See also Abstract Nos. 1435, 1457, 1513, 1525, 1527, 1543, 1544, 1547, 1549

1505. DAVIDSON, G. W., editor. **The hospice: development and administration.** Washington, D.C., Hemisphere Publishing Corporation, 1978, vii, 232pp. $14.95

Hospices are well-established as a means of terminal care in North America. The first section of this book takes six individual hospices and shows their development. The second section deals with care problems and the stresses experienced by staff. The third section considers models and ethics of terminal care, along with some of the legal aspects, such as euthanasia. The final section gives a bibliography, a directory of hospice programmes in the United States, and a review of relevant audio-visual materials.

1506. DOYLE, D., editor. **Terminal care.** Edinburgh, London, Churchill Livingstone, 1979, [x], 70pp. £4.00

This book is a collection of papers from a conference held on terminal care in 1977 at St Columba's Hospice, Edinburgh. The first two papers are concerned with geriatric care and continuing care units. Other papers come from a nurse, a minister and a social worker. In addition to considering the role of the hospice and hospital, emphasis is placed on the benefits to patients and relatives that can come from community care. Papers are also given on home care and primary care.

1507. KEITH, P. M. and CASTLES, M. R. **Expected and observed behaviour of nurses and terminal patients.** *International Journal of Nursing Studies*, Oxford, 1979, vol. 16, no. 1, pp. 21-28.

This study examines: (i) how the nurse and patient roles should be structured to deal with terminal illness; and (ii) the amount of agreement between the expectations of nurses and of patients. Interviews were carried out to discover the degree of similarity between patient and nurse perceptions of: (i) the expected and observed behaviour of nurses who work with terminal patients; and (ii) the expected and observed behaviour of the patients themselves. The results showed that the obligation to be co-operative was felt by terminal patients. Nurses were more prepared to accept idiosyncratic behaviour from dying patients than were the patients, possibly because the latter thought excessive demands would upset the nursing staff. Some patients admitted that a little more emotional support would be helpful. About half the nurses thought deviant behaviour in dying patients excusable, while others thought it undesirable, a situation which could cause conflict when different nurses deal with the same patients. The study supports the view that the skills and behaviour involved in the nursing of terminal patients need clarification.

1508. FIFER, W. R. **Quality assurance: debate persists on goals, impact, and methods of evaluating care.** *Hospitals*, Chicago, 1979, April 1, vol. 53, no. 7, pp. 163-167.

This review of the 1978 literature on quality assurance attempts to indicate the major forces that have characterized the field and of the trends that accompany and precede it. Questions were asked on whether quality assurance improves care and use, cuts costs, changes behaviour, needs new formats, meets new uses, or poses conflicting values. A list of 55 references to the literature is included.

SPECIAL DEPARTMENTS

ANAESTHESIA

1509. MCINTYRE, J. W. R. **Anesthesia equipment malfunction: origins and clinical recognition.** *Canadian Medical Association Journal*, Ottawa, 1979, April 21, vol. 120, no. 8, pp. 931-934.

Faulty equipment is a problem of particular importance during anaesthesia and resuscitation. Although incidents are fortunately rare, reports show that the most common faults involve endotracheal tubes, the inspired oxygen concentration, the volume of inspired anaesthetic vapours and gases, and pressures in the breathing and ventilation system. Clinical signs in the patient indicating poorly functioning equipment are described but, while awareness of these signs is important, other precautions must be taken to ensure patient safety. These are: (i) application of standards set by a national standards association; (ii) careful evaluation of equipment before purchase; (iii) understanding of function by the user; (iv) routine servicing of all anaesthetic and resuscitation systems, followed by checking; (v) testing of equipment immediately before use; and (vi) preparedness for rapid action if faulty functioning should occur.

1510. Narcose gasconcentraties in OK's II: gas evacuatiesysteem van Medec oplossing voor te hoge gasconcentraties: reeds 500 systemen toegepast in Amerika. **[Anaesthetic gas concentrations in operating theatres, II. The Medec gas evacuation system is the solution for high gas concentrations: 500 systems already in use in America.]** *Technische Gids voor Ziekenhuis en Instelling*, Amsterdam, 1979, April, vol. 48, no. 1147, pp. 213, 215, 217, 225.

To evacuate anaesthetic gases which enter the operating theatre via the patient's respiratory valve, Medec have developed the 'Gasovec' evacuation system, which does not require any change in existing anaesthetic techniques, is adaptable to the various techniques and suitable for connection to a central vacuum grid. The components of the respiratory section are made of a lightweight anodized aluminium alloy. The gas collecting chamber has a buffer balloon to collect the gases for conveyance to the suction system without increasing the resistance. There are safeguards for gas pressures and volumes to comply with existing safety regulations. Special adaptable connection for discharge fit the three main types of vacuum systems. The Gasovec with its expiration valve can be cleaned in the autoclave. There is also the 'Slindindex' low pressure connection system, designed to prevent incorrect connections of gas supplies. It measures 50 by 50 by 55 cm. and can be incorporated in the wall of an energy supply

panel. Another device to be introduced shortly is an infant ventilator for new-born babies and children. It is a compact electronically or pneumatically operated ventilator which functions with constant volume or pressure control. Each device is described in technical detail, illustrated by two diagrams, a drawing and three photographs.

PHARMACY

See also Abstract No. 1536

1511. HOFFMANN, R. P. **Expanding pharmaceutical services through efficient staff scheduling.** *Hospital Pharmacy*, Philadelphia, 1979, April, vol. 14, no. 4, pp. 192-194, 198, 200.

St. Joseph Mercy Hospital, Pontiac, Mich., used a staff schedule producing a rotation every eight weeks and dividing work evenly. The number of pharmacists required for each shift was set in discussion with the staff, who were glad to know well in advance the times they would work. Cover was provided to deal with absenteeism, sickness and holidays but was not normally required. Staff were encouraged to develop their knowledge and to follow a continuing education programme but it was no longer a right. Services were expanded with no increase in staff.

1512. AUSTIN, L. H. **Using a computer to run a modern hospital pharmacy.** *Hospital Pharmacy*, Philadelphia, 1979, Feb., vol. 14, no. 2, pp. 74, 79-80.

The computer used to run the pharmacy at St. Charles Hospital, Long Island, New York, is described. The computer was made necessary by a change from a flat rate to an item by item charging system, but it deals with many other pharmacy operations, including patient profiles, printing of labels, keeping the stock inventory up to date, ordering, and generating reports needed by the Director of Pharmacy and the Finance Department. It can also be used for medical functions such as determining drug interaction and collating all patients taking a particular drug. A CRT screen is used to record doses, charge the patient and subtract the doses from the inventory. As stocks are depleted, a new order is generated. The system is modular and therefore flexible and can be enlarged or adopted as required.

1513. WALTERS, S., BARKER, D. and WILKENS, C. **Joint nursing—pharmacy program helps reduce medication errors.** *Hospitals*, Chicago, 1979, March 16, vol. 53, no. 6, pp. 141, 143-144.

Bay General Community Hospital, Chula Vista, Calif., established a unit-dose drug system in 1973; medication trolleys are prepared daily in the pharmacy, delivered to the nursing units, and returned to the pharmacy after 24 hours for monitoring by a pharmacist. Primary nursing was established throughout the hospital in 1977. It was thought that this provided an excellent system for monitoring and correcting medication errors. The programme developed is described in this paper. The first step was to revise the written policy and the procedure for handling medication errors through corrective action. An incident review committee meets monthly to evaluate medication errors. Other methods used include medication reminder cards, computer produced patient

medication profiles, and a monthly audit of medication errors by the nursing administration.

1514. AMBROSIONI, E. Il servizio di farmacia e farmacologia clinica nell'ospedale. **[The pharmacy and clinical pharmacology service in the hospital.]** *Ospedale*, Torino, 1979, April, vol. 32, no. 4, pp. 99-115.

The World Health Organization (WHO) proposed that the main services provided by a department of clinical pharmacology should be: (i) to supply information on drugs and on the choice and mode of use of drugs in hospitals; (ii) to teach medical and paramedical staff and pharmacists and keep them abreast of recent advances; (iii) pharmacological surveillance; (iv) research on pharmacokinetics and pharmacodynamics; (v) therapeutic trials; and (vi) treatment of patients. The most important function is to collect and distribute bibliographical material on the correct use of drugs and interactions between drugs, and the author describes a scheme for indexing information based on type of drug and type of disease. The author enlarges on each of the WHO headings and discusses the organization, structure, staffing, and equipment required for a department of clinical pharmacology.

1515. LUCKMAN, R. and others. **Drug compliance—a study of patient behavior based on medical records.** *Drug Intelligence & Clinical Pharmacy*, Hamilton, Ill., 1979, March, vol. 13, no. 3, pp. 136-143.

Studies concerned with drug compliance after initial prescription dispensing have been frequently cited in the literature, but little research has been done on the initial filling of the prescription order. In order to ascertain the degree of compliance at this level, a study was carried out on a population associated with a neighbourhood health centre. Overall, the study indicated an initial filling compliance of 94 per cent, which was affected by the site of patient encounter, the chronicity of the disease, and the specificity of the medication in relation to the disease state. It was concluded that: (i) prescriptions for chronic conditions are filled at a higher rate than those for acute illnesses; (ii) specific medication for a specific illness has a much higher compliance rate than non-disease specific medications; (iii) ease of access to a pharmacy is related to a higher compliance level; and (iv) frequent patient contact for a specific disease tends to increase compliance.

1516. FRAUCH, P. Medikamente im Krankenhaus: zum Problem der Generica. **[The problem of generic medicines in the hospital.]** *Veska*, Aarau, 1979, April, vol. 43, no. 4, pp. 234-235.

An examination of the relative importance of proprietary and generic drugs concludes that the latter are in many cases a medical necessity. If manufactured by approved methods and properly tested they can be equal to proprietary substances.

LABORATORIES

1517. CHALLAND, G. S. and others. **A short guide to computers and their application in clinical laboratories.** London, Association of Clinical Biochemists, 1979, 38pp. £1.50

This basic guide introduces basic computing terms and jargon; demonstrates various

applications of computers in clinical laboratories; and discusses and outlines problems and decisions that arise with the introduction of a computer system into a clinical chemistry laboratory. Computers are steadily becoming more cost-effective and easier to use, and will eventually become part of the basic equipment in most clinical laboratories. It is, therefore, essential for all staff of such installations to acquire a working knowledge of the function and application of computers. This guide is designed as a first step towards familiarization.

1518. TOWNSEND, J. F. and LUCAS, F. V. **Six-year program shows benefits of shared laboratory services.** *Hospitals*, Chicago, 1979, March 16, vol. 53, no. 6, pp. 107-108, 110, 112.

The Veterans Administration Hospital, Columbus, Mo., and the University of Missouri Medical Center have been sharing laboratory services for six years. This is now the largest and only complete laboratory sharing scheme in the VA hospital system. This paper discusses the rationale and format of the affiliation and how it was implemented. Sharing has enabled the two hospitals to eliminate unnecessary duplication of resources, develop new laboratory capabilities in sub-specialties, handle additional routine procedures, make better use of the expertise of senior staff pathologists, develop uniform standards, enhance quality assessment, and expand training programmes. Some problems have arisen, but sharing has been operational long enough to conclude that it is successful and can serve as a model for other large-scale affiliations.

BLOOD TRANSFUSION DEPARTMENT

1519. TURBAN, E. and PARKER, A. J. **Evaluation and conflict in measures of performance for blood banking.** *Medical Care*, Philadelphia, 1979, Feb., vol. 17, no. 2, pp. 168-174.

American Blood Commission policy statements on national blood banking goals do not identify precise measures of performance. In a study to identify the most important measures, 46 administrators were asked for criteria for both a regional and a hospital blood bank; several other related questions were also asked. The results were used to devise a new questionnaire, which was then administered to 37 surgeons and 40 operating theatre nurses. The results indicate that about 20 measures are currently being used. With respect to the relative importance of the measures of performance, there is strong agreement between physicians and nurses, but little agreement between nurses/physicians and administrators.

DIAGNOSTIC X-RAY DEPARTMENT

See also Abstract No. 1528

1520. HEISLER, W. Computer-Tomographie Personal, Indikation und Wirtschaftlichkeitsanalyse. **[The body scanner: staffing, indications and performance analysis.]** *Krankenhaus*, Stuttgart, 1979, June, vol. 71, no. 6, pp. 209-217.

This account of the body scanner and its use in hospitals is based on two years' experience at a West German hospital and on a symposium held at Wiesbaden in January 1979. The aspects dealt with include the following: a description of the body

scanner and its uses; space requirements and installation planning; indications for use; staffing requirements and the training of staff; analysis of performance; costs; and risks to patients.

1521. BOUCHER, R. La consommation des services de radiologie. **[Demands on radiological services.]** *Administration Hospitalières et Sociale*, Montréal, 1979, March/April, vol. 25, no. 2, pp. 46-48.

Recent statistics show that each in-patient admitted to large hospitals in Quebec has at least two X-rays and one in two out-patients has at least one X-ray. This is 20-25 per cent more than in other Canadian Provinces such as British Columbia or Ontario. The possible reasons for this extravagance are examined; one reason may be that fear of litigation prompts vast numbers of X-rays for the doctor's protection rather than the patient's benefit. In the public hospital, a desire not to overstep forecast budgets may act as a brake but in the private sector the profit motive is an incentive to use radiological facilities.

REHABILITATION

1522. OSTERTAG, R. and others. **Training center for the handicapped.** *Bauen & Wohnen*, Zürich, 1979, May, vol. 33, no. 5, pp. 174-180.

Waiblingen training centre is part of the Stetten/Renstal institution in West Germany. The centre caters for the needs of young people who have particular difficulty with theoretical learning and are thus not capable of profiting from occupational training under the usual conditions. A sizable proportion of these young people are also physically handicapped or behaviourally maladjusted and thus the centre has some unique design aspects.

INTENSIVE CARE UNITS

See Abstract Nos. 1501, 1526

SPECIAL HOSPITALS AND UNITS

OUT-PATIENT

See also Abstract Nos. 1538, 1545

1523. SHIVER, J. M., JACOBS, W. F. and CASSIDY, W. J. **Center provides emergency care without unneeded inpatient units.** *Hospitals*, Chicago, 1979, April 16, vol. 53, no. 8, pp. 116-119.

A study at the 656-bed Fairfax Hospital, Falls Church, Va., showed that, for the foreseeable future, the hospital had enough beds for the population served. However, in one area the need for emergency medical care could not be met by existing services, the nearest emergency department being a 45-minute journey away. The solution was to establish a free-standing emergency/ambulatory care centre in the community but closely integrated with Fairfax Hospital's emergency department through telecommunications and referral. In addition to 24-hour medical and nursing coverage, the centre has continuously operational radiography and laboratory services. The central

core is a square area that contains the nurses' station. Treatment and examination rooms, a cast room, minor and major trauma rooms, and radiography and laboratory services radiate from this area to form a square grouping with the patient corridor outside it. There are separate emergency and ambulatory care entrances.

1524. ORSO, C. L. **Delivering ambulatory health care: the successful experience of an urban neighborhood health center.** *Medical Care*, Philadelphia, 1979, Feb., vol. 17, no. 2, pp. 111-126.

The Bunker Hill Health Center of Massachusetts General Hospital, Boston, provides comprehensive family-centred preventive and problem-orientated health services to the residents of a low-income, urban community. The centre is administered by the hospital, but funded from several sources. This paper presents an analysis of the data on the 9,309 persons who used the centre one or more times during 1975. The main findings are: (i) 52 per cent of all community residents and three-quarters of the children and adolescents were active users of the centre; (ii) average visits per patient varied with age, sex, diagnosis and insurance coverage; (iii) centre physicians, trained as specialists, functioned primarily as general practitioners; (iv) preventive care was planned as a focal point of the programme, but third-party reimbursement policies and the lower priority that many patients placed on non-illness care were major obstacles to the achievement of this goal; (v) the average cost of health care, other than mental health services was about $20 per visit and $74 per patient per year; and (vi) mental health treatment was more expensive. The findings suggest that reconsideration of the neighbourhood health centre as a viable model for delivering health care to the poor might be worthwhile.

1525. HULKA, B. S. and others. **Peer review in ambulatory care: use of explicit criteria and implicit judgments.** *Medical Care*, Philadelphia, 1979, March, vol. 17, no. 3, supplement; pp. 1-73.

This study was undertaken in the light of earlier reports, to seek answers to major questions regarding the selection and use of criteria for peer review in ambulatory care. Following an introduction, there are chapters on: (i) the methodology and results of the study of adherence to explicit criteria; (ii) the relationship between patient outcome and physician adherence to care criteria; (iii) an extension of previous efforts to relate quality of records to quality of care; (iv) the implicit review methodology and its application to the study group; and (v) summary of major findings and recommendations for further research and for the application of the findings, to the development of professional activities in ambulatory care settings.

CASUALTY AND ACCIDENT

See also Abstract No. 1523

1526. SHERMAN, M. A. and others. **Threats to the validity of emergency medical services evaluation: a case study of mobile intensive care units.** *Medical Care*, Philadelphia, 1979, Feb., vol. 17, no. 2, pp. 127-138.

Much of the literature on the evaluation of emergency medical services has been criticized as unconvincing. Several sources of invalidity have made interpretation of the

studies difficult. When true randomized experiments cannot be done, quasi-experimental research designs offer greater interpretability than the more often used pre-experimental designs. In using quasi-experimental research designs, special attention must be given to threats to internal validity. This case study of evaluation of the effectiveness of paramedical-staffed mobile intensive care units, describes threats to the validity of the evaluation, as well as the methods used for their control. Whether or not evaluators can control all of the threats to the validity of their studies, these threats should be identified and their potential effects assessed wherever possible.

1527. ROY, A., LOONEY, G. L. and ANDERSON, G. V. **Prospective vs retrospective data for evaluating emergency care: a research methodology.** *JACEP: Journal of the American College of Emergency Physicians*, Lansing, 1979, April, vol. 8, no. 4, pp. 142-146.

In this study three hospital-based paramedics were trained as observers and stationed in the emergency department. Forms were completed to list the procedural steps and treatment given to new admissions. The intention was to give information for care evaluation other than the more usual retrospective review of medical records. Direct observation was carried out on 422 patients and the data was found more useful than the usual records.

1528. WELCH, T. P. and RENTON, P. **The value of radiological investigations in an accident and emergency department.** *British Journal of Clinical Practice*, Hove, 1979, May, vol. 33, no. 5, pp. 133-134, 136.

In a prospective study of the value of diagnostic radiology in an accident and emergency department, a form was devised for attachment to the X-ray request. On this the doctor requesting the investigation, indicated his expectation of radiological abnormality as: certain, suspicious, unlikely, or X-ray taken for medico-legal reasons only. The radiographer retained the form and placed another one on the uncompleted form. On this the doctor recorded his radiological findings and characterized them as: (i) an unsuspected lesion was found; (ii) a lesion was suspected, but no abnormality was found; (iii) clinically there were several possibilities and the radiograph indicated the appropriate management; and (iv) the radiograph confirmed the clinical findings. In all, 250 investigations for trauma were included from a total of 198 patients. Fifty per cent of the radiographs were thought to be unnecessary. It should be possible by monitoring X-rays and comparing the radiological findings with clinical impressions to educate clinicians in the accident and emergency to be more discriminating in the ordering of X-rays.

1529. BERTOTHY, P. Secours et soins d'urgence à la Réunion. **[Emergency and accident services on Réunion.]** *Revue Hospitalière*, Paris, 1979, May, vol. 43, no. 321, pp. 459-481.

In the event of a natural catastrophe (cyclone, earthquake, volcanic eruption or tidal wave), of which there may be as many as six in a year on the island of Réunion, the armed services are called in; they have adequate resources for the purpose, including a 40-bed medico-surgical emergency unit. When a civilian accident occurs, on the other hand, the resources available are inadequate. It is therefore proposed that SUMA

(Urgent Medical Aid Service) and SMUR (Mobile Emergency and Resuscitation Services) units similar to those in Metropolitan France should be established on the island. The proposed schemes are described in detail.

1530. MORRIS, J. B. and HIRD, M. D. **A survey of new attenders at the accident and emergency department of a small specialist hospital—Angus district.** *Health Bulletin*, Edinburgh, 1979, May, vol. 37, no. 4, pp. 108-120.

Arbroath Infirmary in Scotland was considering a change from being a specialist hospital to a community hospital. To assess the effects of the consequent withdrawal of casualty services a three week survey was undertaken. It was found that general practitioners could deal with many of the cases but the potential contribution by nurses was less than had been expected. Several tables are given to show the results of the survey.

1531. FRIEDMAN, E. **Emergency services: growing discipline comes of age.** *Hospitals*, Chicago, 1979, April 1, vol. 53, no. 7, pp. 85, 86, 90, 94-95, 97.

In the past few years, emergency services have grown into a highly complex and sophisticated branch of health care delivery. The 1978 literature, reviewed in this paper, reflected inevitable results of this growth: increased interest in assessment of performance; creation of appraisal tools and programmes; and a general tendency to review the services established. Although new programmes are still being established, the majority of them seem to be characterized by the addition to or expansion of programmes and systems that were already extant.

DAY HOSPITALS

See Abstract No. 1545

INFECTIOUS DISEASES AND ISOLATION

See also Abstract Nos. 1456, 1487, 1488, 1490

1532. MAASS, G. Allgemeine Prophylaxe der Virushepatitis. **[General measures for the prevention of viral hepatitis.]** *Bundesgesundheitsblatt*, Köln, 1979, March 23, vol. 22, no. 6/7, pp. 109-114.

This paper discusses four groups and how they should be treated: (i) patients with acute hepatitis; (ii) contacts of these patients; (iii) patients with HBsAg-positive chronic hepatitis; and (iv) HBsAg carriers. In the case of (i) treatment is usually in infectious disease wards in hospital; criteria for determining when discharge is possible are indicated for hepatitis A and B. Those concerned under (ii) include teachers and pupils in the community in which the patient lives as well as hospital staff: for the latter specific prophylactic measures are necessary. Patients with HBsAg chronic hepatitis being treated in hospital should be separated from other patients. Limitation of the professional activities of healthy carriers (iv) is not considered necessary as long as certain precautions are taken.

1533. CLAUSS, G. Virushepatitiden und medizinische Berufe. **[Viral hepatitis and the medical professions.]** *Bundesgesundheitsblatt*, Köln, 1979, March 23, vol. 22, no. 6/7, pp. 123-128.

Of 1,257 cases of hepatitis notified as possible causes of industrial disease 855 were evaluated. Of these evaluated cases 134 occurred in medical practice and 42 in dental practice. Cases among hospital staff were grouped as: (i) those engaged in health care (406); and (ii) clerical and technical staff (32). It was shown that the risk of contracting hepatitis was 10 times higher for laboratory staff and those giving direct health care. As a result of these findings the claim is put forward that viral hepatitis should be recognised as an occupational disease in staff having direct contact with patients, or materials from their bodies, if the diagnosis has been confirmed and there is no evidence of exposure outside their professional activities.

CHILDREN

See also Abstract Nos. 1440, 1441

1534. ALMER, G. Die Betreuung ausländischer Kinder im Krankenhaus. **[The care of foreign children in the hospital.]** *Deutsche Krankenpflege-Zeitschrift*, Stuttgart, 1979, June, vol. 32, no. 6, pp. 319-325.

There are estimated to be about one million children of foreign workers in Western Germany. The many problems which arise when these children have to be admitted to hospital are discussed and illustrated by examples of individual patients. Problems are dealt with under the following heads: language difficulties; food and eating habits; education; hygiene; behaviour; religion; relationship between parents and nurses; relationship between parent and doctors; and parents' difficulties related to hospital procedures. The children's nurse has a most important role to play but a change is also needed in the public attitude toward these minorities.

1535. HALL, D. and STACEY, M., editors. **Beyond separation: further studies of children in hospital.** London, Routledge and Kegan Paul, 1979, xii, 243pp. £6.50

Psychological and sociological skills are as necessary as medical skills in dealing with sick children in hospital. The final chapter attempts to draw some conclusions including: (i) more discussions should take place between social scientists, medical and other health-care practitioners; (ii) education should be broadened; (iii) hospitals should attempt to involve outsiders such as teachers, parents and primary care providers; (iv) nurses should be assigned to individual children and give some emotional support. A number of suggestions for further research are given.

1536. MACLEOD, S. M. **Clinical pharmacology in a paediatric hospital.** *Dimensions in Health Service*, Ottawa, 1979, May, vol. 56, no. 5, pp. 33-34.

Despite the critical role now played by the clinical pharmacologist, there are only three in Canada and no more than 50 in North America who specialize in paediatrics. The role of the paediatric clinical pharmacologist is discussed with respect to the four major objectives of clinical pharmacology outlined by the World Health Organization:

to promote safer and more effective drug use; to increase knowledge of drugs through research; to pass on knowledge through teaching; and to provide services such as drug information, quantitative analysis and advice on the design of experiments involving drugs.

1537. SPRI. Barn på sjukhus: lekterapi, bibliotek och skola. **[Children in hospitals: play therapy, library and school.]** (Spri Rapport 6) Stockholm, Spri, 1979, 72pp.

In 1976 the Swedish Parliament passed an act to ensure that hospitalized children have an opportunity to participate in activities which are equivalent to those offered in nursery schools. Some guidance is given here on planning and equipping facilities for these activities. In addition facilities which can be used jointly by both child and adult patients are discussed. The importance of play therapy is stressed and a library of 3.5 sq.m. per child is suggested. In the 1st chapter the need for flexible educational facilities is dealt with.

1538. PLAZA MONTERO, J. La asistencia medica en regimen ambulatorio en pediatria. **[Medical services for paediatric out-patients.]** *Estudios sobre Hospitales*, Barcelona, 1979, no. 93, pp. 17-37.

Ideally the sick child should be seen in his own home, but this would take up too much of the paediatrician's time; the hospital out-patient department is the best alternative. The author outlines the work of a paediatric out-patient unit serving a total population of 20,000 inhabitants. Six paediatricians, six nurses, one receptionist, and two cleaners are required. He describes the facilities required and estimates the running costs. A region with a total population of 720,000 (180,000 children) will require 36 out-patient paediatric departments, six local hospitals, and one regional hospital.

GERIATRICS AND LONG-STAY

See also Abstract Nos. 1404, 1411, 1548

1539. WARD, P. and COMERY, P. **A review of measures of quality of life and quality of environment in residential institutions for elderly people.** Exeter, University of Exeter Institute of Biometry and Community Medicine, 1978, [ii], 105pp. £2.00

On both sides of the Atlantic considerable research has now been done on residential institutions and their effects on elderly residents. This report includes an appendix with details of some 48 projects and has a full bibliography. As well as outlining the present state of knowledge in this field for other research workers, the authors provide some information for managers in the social and health services.

1540. HATTINGA VERSCHURE, J. C. M. Het verpleeghuis: inrichtings- of leefgemeenschapsmodel. **[The old people's home: an example of institutional or community living.]** *Ziekenhuis*, Utrecht, 1979, May 2, vol. 9, no. 9, pp. 214-218.

Patients living in nursing homes are often unhappy having lost their sense of meaningful existence. Community living is characterized by: (i) formally belonging to a group; (ii) having emotional relations with members of that group; and (iii) being

occupied with looking after oneself and other members of that community. Relationships vary in order of hierarchy and making a caring contribution is both necessary and self-fulfilling for an individual. Alongside this community model stands the institutional model: an organization within a building, paid staff, daily routine, criteria of efficiency, restricted personal freedom, and rules and regulations denying the fundamental human need of creating one's own environment. The staff forms its own community to which patients do not belong. Comparing the two models, it is the third characteristic which is lacking in the institutional model. Patients, already handicapped by their disability, are not encouraged to look after themselves and take interest in the needs of their fellow patients. To alter the system will meet with resistance, requiring a change of attitude by the staff. The author suggests maintaining close connections with the patient's previous environment, allowing patients some of their own furniture, encouraging hobbies and interests, relaxation of rules and more flexible daily routines. A study group is being set up for more research.

1541. BLUMENKRANZ, J., BERNHARD, F. and GOTTLIEB, G. S. **Geriatric complex offers options from housing to skilled nursing.** *Hospitals*, Chicago, 1979, March 16, vol. 53, no. 6, pp. 123-124, 126, 128.

The Daughters of Jacob Geriatric Center, Bronx, N.Y., consists of separate but interconnected physical facilities that are designed to accommodate a comprehensive programme of care from minimum supportive services in flats to maximum intensive care in a skilled nursing facility. The centre includes a 300-bed skilled nurse facility and a 210-bed health-related facility in a 14-storey building, and a block of 227 flats. Three existing buildings are being modernized to provide another 163 flats. The 14-storey medical care building has administrative, support and specialist services on the ground and first floors. The skilled nursing facility occupies the second to seventh floors. Each floor houses one nursing unit of race-track design, with patients' rooms in clusters of one single and one double room sharing a toilet and entrance foyer. The top five floors are occupied by persons who do not require skilled nursing care, but are unable to function independently.

UROLOGY

See Abstract Nos. 1487, 1488, 1490, 1532, 1533

SURGERY

See also Abstract No. 1459

1542. GOODWIN, J. O. **Programmed instruction for self-care following pulmonary surgery.** *International Journal of Nursing Studies*, Oxford, 1979, vol. 16, no. 1, pp. 29-40.

Programmed self-instruction appears to offer an effective and inexpensive method of patient education, a process which is an important aspect of the nurse's role. The effectiveness of a programmed booklet on self-care and recovery for patients who had undergone pulmonary surgery was tested on a sample of 26 such patients, divided into one experimental and one control group. The booklet's effect on patient knowledge was

tested at the time of discharge and at the first out-patient visit after discharge. The booklet was shown to be useful in: (i) increasing knowledge; (ii) encouraging therapeutic activities; and (iii) promoting some improvements in respiratory function. It did not: (i) discourage harmful activities; (ii) promote improved movement; nor (iii) influence the resumption of work and social activities. The results however, were sufficiently encouraging to suggest that programmed materials may be helpful as aids to self-education amongst other groups of patients.

MATERNITY

See also Abstract Nos. 1482, 1483

1543. WILLIAMS, R. L. **Measuring the effectiveness of perinatal medical care.** *Medical Care*, Philadelphia, 1979, Feb., vol. 17, no. 2, pp. 95-110.

An outcome-based index of the effectiveness of perinatal care was constructed by computing an 'expected' perinatal mortality rate for 504 Californian Hospitals, based on the birth weight, sex, race, and plurality of each newborn. The index was then defined as the ratio of the observed mortality rate to that expected. The observed-expected ratio was found to be significantly correlated with a number of traditional indicators of medical care quality. Multiple regression techniques revealed that the mortality rate was significantly lower in larger services, in urban hospitals, in hospitals performing above-average numbers of caesarean sections, in those recording Apgar scores, and in those having higher specialist-to-generalist ratios. Conversely the observed-expected ratio was significantly higher in hospitals with larger percentages of mothers with Spanish surnames and in private proprietary hospitals. By separating the index into its observed and expected components, the regression model accounted for 82 per cent of the variance in the observed perinatal mortality rates.

1544. YOUNG, P. **Developing relationships in special care baby units: a conference held at the King's Fund Centre on 30 March 1979; report.** (KFC 79/112) London, King's Fund Centre, 1979, 16pp.

'Bonding' between an infant and its parents is important for the well-being of both parties. This conference report considers how hospital staff and hospital procedures can assist the process. Where babies have to be separated in special care units the mother can still be given a photograph of the child and the father taken to see and touch it. Even where the child might die the importance of parental bonding remains.

PSYCHIATRY

1545. LUBER, R. F., editor. **Partial hospitalization: a current perspective.** London, Plenum Press, 1979, xvii, 205pp.

Psychiatric cases were once treated almost invariably on an in-patient basis, with the individual kept away from family and society. Day hospitals and out-patient care are,

however, becoming more usual. Advantages of this 'partial hospitalization' are: (i) it does not force a separation between the patient and his family; (ii) it costs far less to deliver than in-patient care; and (iii) it avoids the stigma of institutionalization. One disadvantage is the possible effect a severely depressed or schizophrenic patient may have on his children or other relatives living in the same household. The various contributors provide some American experience on the various costs and benefits of the different levels of treatment available.

1546. FELDMAN, P. S. and others. **Phasing down state hospitals: integrated versus nonintegrated services.** *Hospital & Community Psychiatry*, Washington, D.C., 1979, May, vol. 30, no. 5, pp. 334-337.

This article is based on two mental health catchment areas in Massachusetts that were in the process of phasing down state hospitals and building up community care. The area that had already integrated state hospital and community services was more successful in the run down, less in-patients were admitted and length of stay was reduced. Thus a unified system of intake and referral emerges as the more adaptable. The authors also recommend the use of case managers to follow the clients through the service delivery system.

1547. WILKINSON, T. **The problems and the values of objective nursing observations in psychiatric nursing care.** *Journal of Advanced Nursing*, Oxford, 1979, March, vol. 4, no. 2, pp. 151-159.

This paper describes a drug trial conducted on a children's psychiatric ward where there are up to 10 children aged between seven and 12 years. It illustrates the problems involved in objective nursing recording to assess response to a specific treatment. It also highlights some difficulties in recording results. The method of formulation of a checklist and the difficulties in completing a study are discussed. The results of the study and their value in planning future work are outlined. Conclusions are drawn about the feasibility of carrying out a controlled drug trial with a patient on a ward, but the most important aspects are the ability of nurses to perform objective assessments and the value of this approach when assessing a patient and his response to treatment.

1548. SCOTTISH HOME AND HEALTH DEPARTMENT and SCOTTISH EDUCATION DEPARTMENT. **Report on services for the elderly with mental disability in Scotland: a report by a Programme Planning Group of the Scottish Health Service Planning Council and the Advisory Council on Social Work.** (Chairman: Dr. G. C. Timburg). Edinburgh, HMSO, 1979, vii, 61pp. £1.50

Of a total of almost 7,000 elderly people in Scotland with mental disability requiring hospital care about half are currently in inadequate accommodation. The report remarks that the number of people requiring these services will rise and calls for closer collaboration between local authority services, voluntary bodies and central government. Urgent action to increase psychiatric day hospital places is called for. The recommended form of in-patient care is a 'continuing care unit' for the elderly confused, with an initial provision of 5,500 beds. Better staff training is also called for.

1549. STELMACHERS, Z. T., BAXTER, J. W. and ELLENSON, G. M. **Auditing the quality of care of a crisis center.** *Suicide and Life-Threatening Behaviour*, New York, 1978, vol. 8, no. 1, pp. 18-31.

Much attention has been given to evaluation of the quality of care in the United States, through the Professional Standards Review Organization and the Joint Committee on Accreditation of Hospitals. This paper investigates the possible methods for auditing care in psychiatric out-patient and emergency services. The particular hospital taken for the study is the Hennepin County Medical Center, Minneapolis, Minnesota. Peer review of the medical records was used and the audit fell into three parts: (i) completeness of the recorded information; (ii) clinical adequacy of the treatment; and (iii) adequacy of the medical-psychiatric consultation. Criteria for requesting psychiatric consultation are given.

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